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**SECTION: *ECONOMICS, BUSINESS ADMINISTRATION,
TOURISM AND ECONOMIC STATISTICS***

EVOLUTION OF THE LABOUR MARKET IN BIHOR BETWEEN 2008 -2018

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Abstract: *This paper aims at analysing the labour market in Romania from the perspective of interregional disparities. In this sense we elaborate some INSSE and EUROSTAT statistical data which report to this type of market. In this analysis we mainly used the method of dispersion. In order to recognize the types of positive and negative effects of the national, sectorial and regional factors upon the employed population and the number of employees. The indicators monitored in the paper were the following: employed population, number of employees, activity ratio, unemployment ratio, job vacancy ratio. The analysed period included the years between 2008 and 2017. In the Northwest Region, expressive economic growth in the last decade has not continued at a progressive rate of employment, although labor productivity has resolved. Also, employment circumstance have steadily decreased, reducing the percentage of active population. Statistical labor market data put the Northwest Region at a disadvantage compared to the EU25; however this is a reasonable position in relation to the national average. The labour market on the national but also and regional level is determined by regress, delayed reactions, reduced flexibility in the dynamics of the economy, the inability to create new employment opportunities mainly in branches with high added value. This article tries to capture the evolutions of the rural economy of Bihor county, whilst appreciating the matters within the broader context of the six region of economic development and socio-legal context in which to place economic and social life of the rural Romanian during the post-communist period. Although with a very important agricultural potential, both at the country level and also territorial, this potential has not produced economic development, but underdevelopment, on the background of a rural subsistence economy, and this economy tends to become chronic underdevelopment, as a result of diminishing in agricultural productions without the appearance of alternative strategies for the development of services of small rural industries, rural or agricultural farming or associative systems.*

Keywords: *labour market; evolution; Bihor county; regional level; economical crisis; North West region.*

JEL Classification: *E24; R23; E29.*

1. Introduction

The North-West Region of Romania was established by the voluntary association of local and county authorities in the counties of Bihor, Bistrita-Nasaud, Cluj, Maramures, Satu Mare and Salaj. The area of the region is 34,160 km², representing 14,3% of Romania's territory.

72.5% are active in the services sector (33.51% in trade), while 12.8% are active in industry, 11.75% in construction and only 2.9% in agriculture. 47.4% of the

population live in rural areas. In the Northwest rural area, 45.8% of earnings are earned in agriculture, 29% in industry and construction and 25.2% in services. An important barrier to economic development in rural areas is the diversification of the undisciplined development of road infrastructure and utilities. Lack of land and building ownership documents for many households.

The main reasons for this situation are the level of education, civic responsibility and participation.

In 2008, the North-West Region had 2,730,132 inhabitants, representing 12.65% of Romania's population. Cluj County has 689,523 inhabitants (25.26% of the whole population in the region); it is followed by Bihor (594,982 inhabitants – 21.79%), Maramures (515,313 inhabitants – 18.87%), Satu Mare (367,677 inhabitants – 13.47%), Bistrita-Nasaud (317,685 inhabitants – 11.64%) and Salaj (244,952 inhabitants (8.97%). (Table 1)

Table 1. Inregistered inhabitants by regions of Romania in 2008

Region	Area	Population Thousand inhabitants
North- West	60,3	77,3
Center	53,6	73,1
North-East	64,7	79,2
South Muntenia	58,2	76,6
Bucharest- Ilfov	66,7	80,3
South-West Oltenia	56,7	75,7
West	51,9	71,4
South-East	49,6	73,4

We analysed the some specific indicators of the labour market from statistical point of view: evolution of the unemployment rate among 20 - 64 years old people compared with the evolution of the unemployment rate among 15-24 years old people.

The employment rate demonstrates the superiority of the Bucharest - Ilfov county as compared with other regions. However, it should be noted that in most regions the employment rate exceeds 62%, only in the Central region and in the East South region we encounter rates below 60%. These values refer to 2010, allowing us to believe that by 2020 our country can meet the target of 70% employment rate.

The registered values are different, since the top ranking of the Romanian regions changes significantly.

The first place is occupied by the North East region at a rate of 13.2%, followed by the South West Oltenia region with 18.2% and the Northwest region with 18.9%. The Bucharest - Ilfov region ranks fifth, with a youth unemployment rate of 20.3%. The first position is occupied by the North East region due to the fact that it is ranked on the second place for the employment rate with 66.9%.

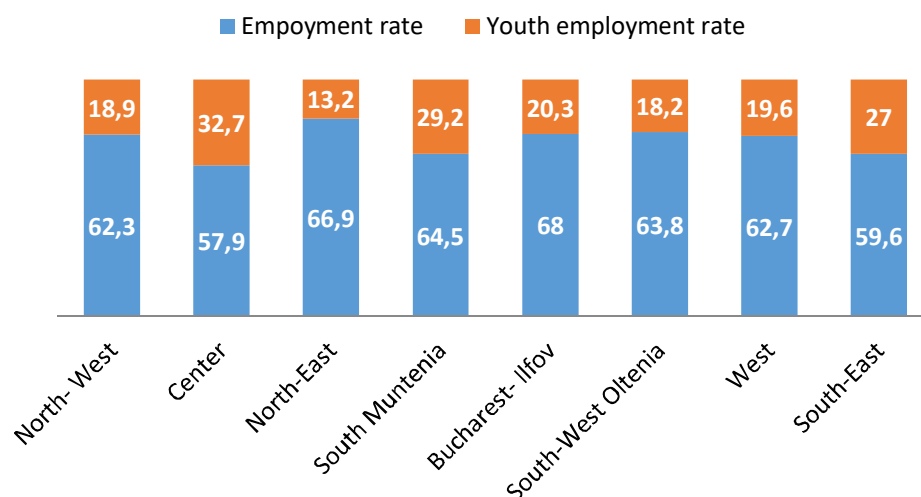


Figure 1. Evolution of the employment and youth employment rate by regional level in Romania, 2010

Source: Designed by the author based on the published by the INSSE, Editions: 2010

Bihor County is one of the counties where the percentage of young people under 25 years looking for their first job in the 2011 census reaches below 70%. In this region, only Cluj between the two censuses recorded an increase of over 5% for the unemployed of 55 years and above. The changes in the current period offer us information about the evolution of the labour market for long term and about how important training is both in the required cycles, but especially lifelong training. Based on this, but especially on the importance of the human factor on the labour market and implicitly in the economic development, we believe that the attention that must be paid to education should be more relevant to all levels of education.

As it can be seen from Figure No. 2, the concentration of the ones who attend a university in the Bucharest - Ilfov region is generated by the existence of a renowned university centre in the Romanian capital.

In a similar way, we can see higher rates in areas where there are well-known universities in our country; this is proof that these universities are still searched for, despite the alternatives that have appeared in the university field since 1989. For participation rates of four year-olds in pre-primary and primary education the regions of Romania record values above 66%, but they are still small given the context in which the EU rates vary mainly between 90% and 100%.

From the indicators based to education we selected: The participation rates of four year-olds in pre-primary and primary education (1); Total number of students in tertiary education (2), as a percentage of the population aged 20-24 years; Persons aged 25-64 years with tertiary education (3) realization.

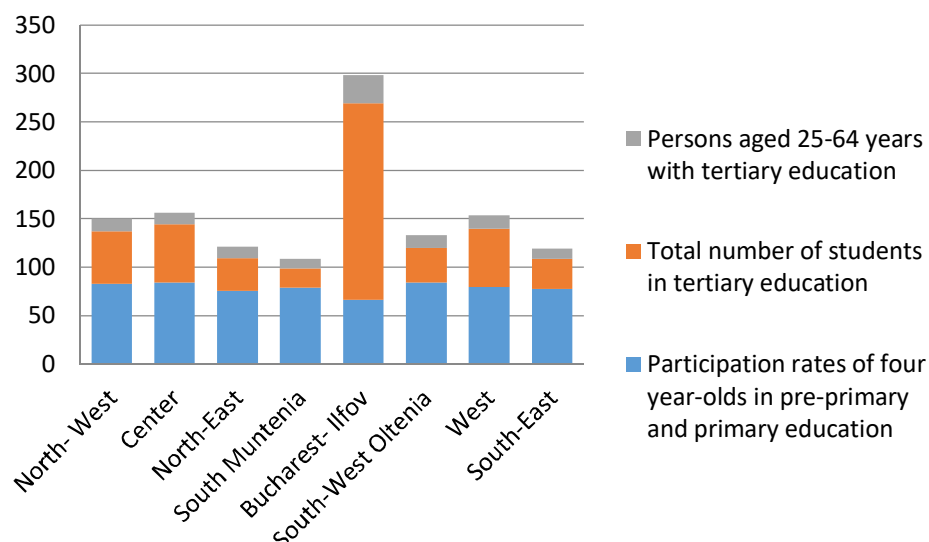


Figure 2. The participation rates of four year-olds in pre-primary and primary education the regions of Romania, 2011

Source: Designed by the author based on the data from the Romanian Statistical Directories published by the INSSE, Editions: 2011

2. Labour Status at Regional Level

In the second quarter of January 2017, the region's labour was 1 659.2 thousand persons, of whom 70.4 % were in active employment. The main economic activities, the share of the civilian population in agriculture, forestry and fisheries is 22.2 %, while the active population accounts for 34.3 % in industry and construction and for 43.5 % in services. The registered unemployment rate in the four quarter of 2017 was 3.1 %, corresponding to 33.7 thousand unemployed persons. The most important industrial sectors are present in this region, as are more and more major foreign companies, some of which are based in the industrial parks set up in this region in Tetarom Cluj, Borş, Jibou and Satu Mare.

The reduction of the number of the population aged 15 years and over by labour status, by regions of development is represented table no 2.

The ratio of economic dependency (number of economically inactive persons and unemployed per 1000 employed persons) reached the highest value (1566‰) in the region South-East and the lowest value in the region Bucharest-Ilfov (1032‰).

The rate of the active population between 15-64 years registered the lowest values in the regions West and South East (both with 61.7%) and in the Center region (63.4%) and the highest ones in the regions Bucharest-Ilfov (73.2%), North-East (72.2%) and North-West (68.9%). Men have higher activity rates than women in all the regions of the country.

In two of the eight regions, the activity rates for working age population in rural area were higher than in urban area: North-East (6.3 %) and South-West (3.8 %).

At the opposite pole there are the other six regions, where the activity rate in rural area is outrun by the one registered in urban area; the highest difference being noticed in the region Center (11.3 %).

Table 2. Structure of population aged 15 years and over by labour status, by macroregions and regions, in 2017

Macroregions Regions	Population aged 15 years and over	of which:		
		Employed persons	Unemployed	Economically inactive persons
	(thousand persons)	(percentages)		
TOTAL	16600	52.2	2.7	45.1
MACROREGION ONE	4119	51.9	2.1	46.0
North-West	2165	54.8	2.1	43.1
Center	1954	48.6	2.1	49.3
MACROREGION TWO	4729	53.6	2.4	44.0
North-East	2663	59.3	1.8	38.9
South-East	2066	46.1	3.2	50.7
MACROREGION THREE	4518	53.6	3.2	43.2
South Muntenia	2555	50.5	3.7	45.8
Bucharest-Ilfov	1963	57.6	2.6	39.8
MACROREGION FOUR	3234	48.9	3.2	47.9
South-West Oltenia	1697	50.3	4.2	45.5
West	1537	47.3	2.2	50.5

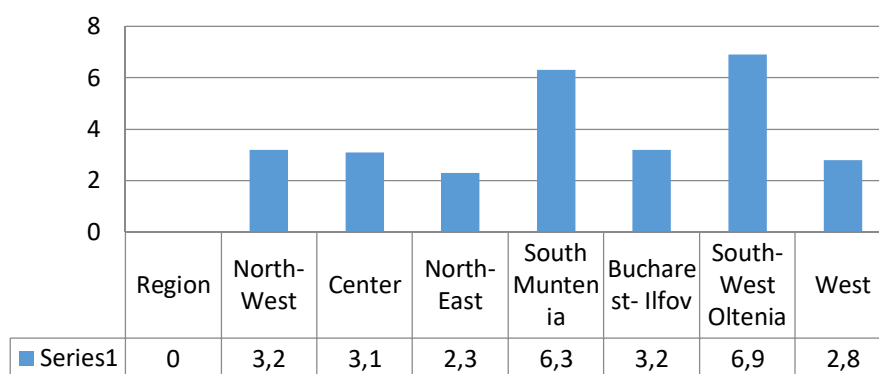


Figure 3: The ratio of economic dependency by region, in 2017

Source: Designed by the author based on the data from the Romanian Statistical Directories published by the INSSE, Editions: 2017

In 2017 the employment rate of working age population (15-64 years) reached the highest values in the regions Bucharest-Ilfov (70.0%) and North-East (69.9%), and the lowest in the regions South-East (57.6%) and West (58.9%). the employment rate of working age population was higher for the men than for women; the difference between the two rates had values from 11.6 percentage points in the region Bucharest-Ilfov to 21.0 percentage points in the region South-East.

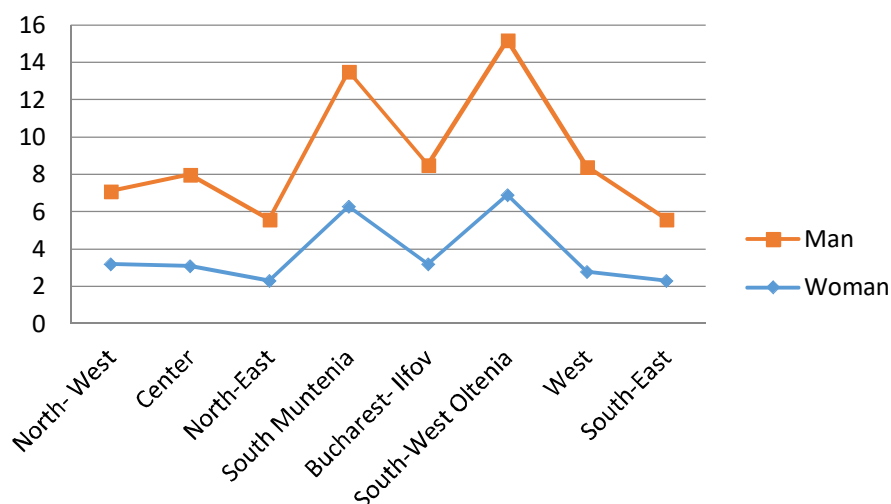


Figure 4. The number of unemployed and the young unemployment rate by regions, in 2017

Source: Designed by the author based on the data from the Romanian Statistical Directories published by the INSSE, Editions: 2017

The employment rate of the working age population in rural areas surpassed that of urban areas in two of the eight regions, the differences being registered in North-East (6.3 percentage points) and South-West (3.3 percentage points).

In the other regions, the employment rate was higher in urban areas than in rural areas, the biggest differences occurring in the Center (12.4 percentage points) and Bucharest-Ilfov (4.9 percentage points).

The highest difference between the two rates (men compared to women) was recorded in West (2.8 percentage points) and the lowest in North-West (0.7 percentage points).

In 2017, the region South Muntenia concentrated 21.0% of the total unemployment, followed by South-West Oltenia (16.0%) and South-East (14.8%). The lowest share in total unemployment was held by region West (7.5%), with only 34 thousand unemployed.

The unemployment rate reached the highest values in the regions: South-West Oltenia (7.7%) and South Muntenia (6.8%) and the lowest ones in the regions: North-East (2.9%) and North-West (3.6%).

The rural area is characterized by higher unemployment rates than urban area in five of the regions, the highest difference being registered in Bucharest-Ilfov (2.6 percentage points).

The highest unemployment rate was recorded in the urban area of the region South-West Oltenia (7.9%) and the lowest one in the region North-West (2.9%). In comparison, the highest rate of unemployment in rural area was recorded in South-West Oltenia (7.6%) and the lowest in North-East (2.7%).

In North-East and South-West Oltenia the unemployment rate was higher in urban area than in rural area; in West the same value was registered in both residential areas (4.4%).

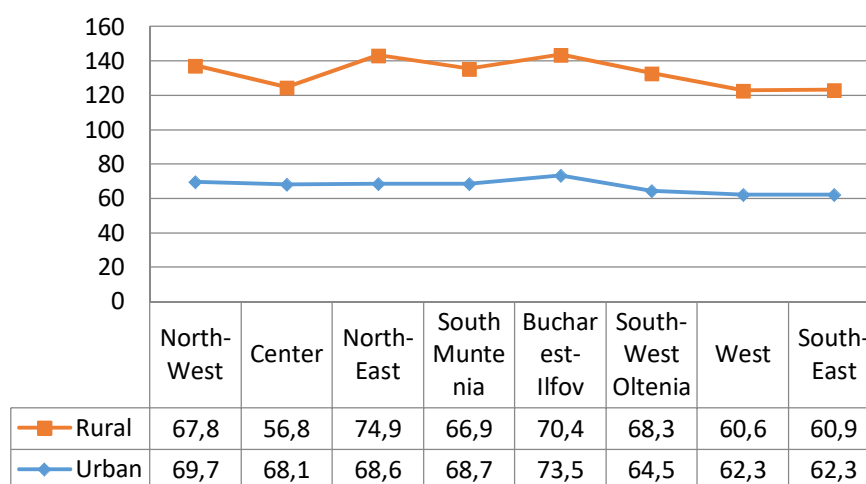


Figure 5. The number of unemployed and the unemployment rate by regions and urban/rural area, in 2017

Source: Designed by the author based on the data from the Romanian Statistical Directories published by the INSSE, Editions: 2017

The highest difference between the two rates (men compared to women) was recorded in West (2.8 percentage points) and the lowest in North-West (0.7 percentage points). Figure no.6.

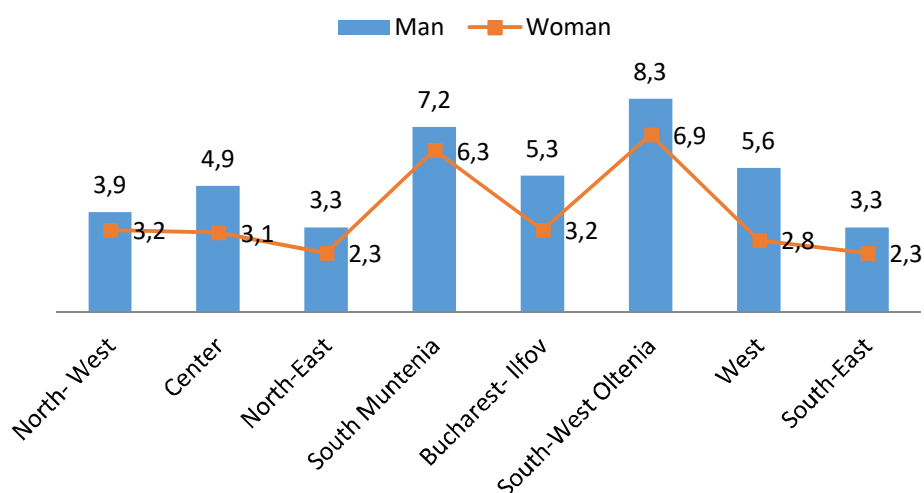


Figure 6. Evolution of the unemployed and the unemployment rate by regions, in Romania, 2017

Source: Designed by the author based on the data published by the INSSE, Editions: 2017

The rural area is characterized by higher unemployment rates than urban area in five of the regions, the highest difference being registered in Bucharest-Ilfov (2.6 percentage points). The highest unemployment rate was recorded in the urban area of the region South-West Oltenia (7.9%) and the lowest one in the region North-West (2.9%). In comparison, the highest rate of unemployment in rural area was recorded in South-West Oltenia (7.6%) and the lowest in North-East (2.7%). In North-East and South-West Oltenia the unemployment rate was higher in urban area than in rural area; in West the same value was registered in both residential areas (4.4%). Figure no.7.

In point of the distribution on the two residential areas, there are significant differences between the counties of the North-West Region. For instance, Cluj (the county with the highest urbanisation degree, 66.89% of the inhabitants living in urban areas) and Maramures have mostly urban population, Bihor has a balanced urban and rural population and in Bistrita Bistrita-Nasaud, Satu-Mare and Salaj most of the inhabitants live in rural areas.

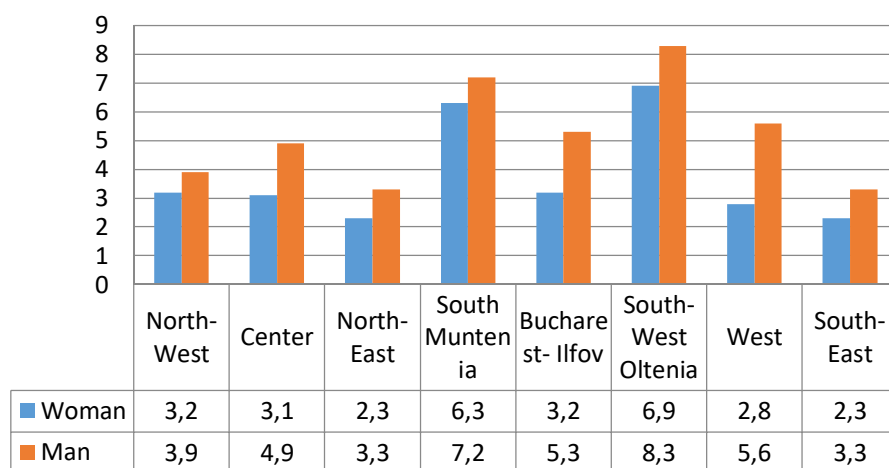


Figure 7. The unemployment rate by regions and gender, in 2017

Source: Designed by the author based on the data from the Romanian Statistical Directories published by the INSSE, Editions: 2017

As far as the evolution of the human indicators is concerned, in the past years, the region has undergone a series of negative processes, among which the most significant are the demographic decline caused by the negative natural growth and the accentuated migration of the inhabitants, mostly the active ones. Irrespective of the decrease in the percentage of the urban population, which has been a national phenomenon, what should have us worried is the inability of the urban areas, especially those that concentrate most of the urban population in the region, to provide viable alternatives to those inhabitants who prefer the rural environment to the urban one or immigration.

3. Conclusions

The discrepancy between Romania's regions are more than apparent, but there is growth possibilities, probably not at the level of the richest EU regions. At first, Romania must set its priorities in securing the future evolution of these regions and to establish realistically attainable goal, based on the current evidence available in each region, without letting ourselves be manipulated by what is happening in Europe.

It is more than evident that we should follow the pace of evolution of the other regions in the EU, but not to set standards impossible to reach in Romania. All these declarations are based on the illustrations presented above, and especially on the main objectives of the regional development policy founded by the Ministry of Regional Development and Tourism.

In conclusion the low level of unemployment is explained mostly by growth, but in the case of Romania, is explained by the obvious action of several factors: labor gone abroad (1.5 - 2 million people) while the majority are people who, if he had stayed in the country were unemployed, the population employed in subsistence farming that had no job and a steady income and was in an insecure socio-economic situation; employment unit engaged in economic losses that would become unemployed if the subsidies will be stopped, early retirement decreased pressure on the labor market but led to increasing economic dependence.

I believe that Romania needs policies that address improving incentives to increase the supply of jobs for some special categories: young, elderly and women. These policies measures and include more flexible working conditions, such as part-time contracts and temporary, increased assistance for job identification and guidance, and dedicated programs.

Analysis throughout the period between 2008-2017 in the labor market in Romania was characterized by large regional disparities, with increases the unemployment in some counties. Therefore, this unemployment development is manifested differently at regional level there are differences between east and west of the country.

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THE EUROPEAN COMPLEX KNOWLEDGE

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Abstract: Nowadays, it has been besetted with knowledge input and output measurement instead of analyze the quality of the knowledge produced. Since knowledge become central into capitalistic production processes, the competitive advantage of countries is the principal engine for the production of high-value, non-ubiquitous and complex knowledge (see Dicken, 2007). The aim of the present study is to measure the knowledge complexity of the European countries from 2004 to 2013, designing the knowledge evolution and distribution. One consequent intention is to examine in which way the spatial knowledge diffusion might be connected to complexity. To achieve these purposes, we identified the presence of the European country-tech knowledge network, used as starting point to compute the Knowledge Complexity Index, in which the technological classes are composed by the countries having an relative technological advantage in terms of patent spread. Subsequently, we used two distinct types of statistical analysis: the first, based on non-linear clustering with Self-Organizing Map (SOM hereafter) neural network, for evaluating the performance development of the European countries between 2004 and 2013, where, for example, East countries, located at the top of the map, show low values in almost all considered variables; and the second one, based on the Knowledge Complexity Index (KCI hereafter) of technological classes, for quantifying the European knowledge complexity; describing the possible spatial patterns and transformation of the European knowledge. What emerges from the present study is an inactive spatial state of art, in which only the Northern European countries produce the most conglomerate knowledge and technologies. In this structure, it is necessary to stress out that what affirmed previously could be considered the basis for the improvement and the achievement of the specific country's innovation policy. However, under complex knowledge terms, the previous innovation policies might be assimilated with a useful tool for the increment of that technologies that present more complexity than the original ones.

Keywords: network analysis; neural network; country performance; Europe.

JEL Classification: 010; 030.

1. Introduction

Nowadays, knowledge networks give a wide range of opportunities for stimulating knowledge creation, due to the facilitated access to information and knowledge distribution through network links and indirect paths. This framework is possible since central players perform as hubs for knowledge diffusion process: they spread knowledge through various connected actors and knowledge flows between diverse unconnected patterns, carrying out as an information and knowledge *gatekeepers*. As a consequence, knowledge has become central into capitalistic production

processes: the competitive advantage of countries is the principal engine for the production of high-value, non-ubiquitous and complex knowledge (see Dicken, 2007). For that reason, knowledge is considered spatially close, difficult to create or to move outside its productive space: most of the theoretical researcher put their attention on the knowledge economy instead of the absence of the knowledge produced in a country. One possible explanation, according to Pavitt (1982), could be the absence of accurate knowledge and technological measures. Recently, some authors, like Boschma et al. (2015) and Rigby (2015) have tried to analyze structures that might pilot the knowledge development trajectories via the technological abandonment and diversification. These type of investigation were encouraged by Jaffe (1986), who provide a technological distance between firms estimation; and Kogler et al. (2013), who used patent data for the technological classes distance measurement. So, which countries detain the most valuable knowledge? Answering to this question could be hard because, according to Bult (1982), one of the principal reason why the researchers have not so familiarity with the knowledge composition is the inaccurate measurement of the knowledge and technology. In fact, four-years studies have started to investigate this type of phenomenon in deeply. In these studies, it was used patent data to size the distances between classes of technologies providing a visualization of local knowledge space and, at the same time, an exploration on how the previous mentioned structure might guide the local trajectories of possible knowledge development through achievable technological diversification patterns.

The prime aim of the present paper is to try to estimate the knowledge complexity of the European countries from 2004 to 2013, designing the knowledge evolution and distribution. One consequent intention is to examine in which way the spatial knowledge diffusion might be connected to complexity. To achieve these purposes, we identified the presence of the *European country-tech knowledge network*, and subsequently, we used two distinct types of statistical analysis: the first, based on non-linear clustering with SOM neural network, for evaluating the performance development of the European countries between 2004 and 2013; and the second one, based on the KCI of technological classes, for quantifying the European knowledge complexity.

The present paper is structured as follows. Section 2 shows in which way the concepts in the Introduction could be able to work using patent reports; the statistical-topological tool, the SOM; and network-based techniques, describing the KCI construction process. Following, Section 3 shows statistical and visual evidences about how the relatedness and the knowledge complexity have shaped the different configuration in Europe from 2004 to 2013. Finally, Section 4 gives a short conclusion and discussions about the existence of opening questions within this research theme.

2. Data and Methods

As asserted in the Introduction, the principal dispute for the knowledge complexity measurement is the recognition of the technological possibilities. To investigate this phenomenon, complexity economists have improved principles in which they defined them using mathematical methods: we tried to reach this type of complexity through the use of patent data. In particular, we used this data for computing the relatedness measurement between different collection of knowledge (classified by patent

classes) and the complexity value of technologies. In this study, for detecting the technological fields of interest, it was helpful the Eurostat Patent Office database. Moreover, the geographical spectrum of the patent was restricted to the European countries (EU28) using the Eurostat database for formulating the SOM analysis.

2.1. The Neural Tool and the Database Used

As previously affirmed, we used, for the geographical spectrum of analysis, a topographic map which is a two-dimensional, non-linear approximation of a potentially high-dimensional data sets where the SOM algorithm is one of the most used.

The principal goal of the SOM is to modify an incoming signal pattern of arbitrary dimension into one-core or two-dimensional discrete maps and to make this transformation, in an adaptive way, in a topologically ordered manner. SOM algorithm sorted out two different stages: the competitive and the cooperative ones. In the first stage, neurons become selectively harmonized to various input patterns (the so called *stimuli*) or classes of input pattern during the course of the competitive learning stage. Consequently, the location of the neurons become ordered and a meaningful coordinate system for the feature is created on the lattice. So, the best-matching neurons are selected, for example, like the *winner*, as result in the Kohonen Network method. In the second stage, the weights of the winner are adjusted as well as those of its immediate lattice neighbours.

Linked to the previous neural approach and under the database construction point of view, we consider two different types of variables. Firstly, the variables that focus on aspects of a country's knowledge production capacity (*capacity dimension*) in terms of:

- Percentage of ICT personnel in total employment and the percentage of ICT sector on GDP are used as a proxy of the ICT development sector;
- Employed share of population with tertiary education (correspond to levels 5 and 6 of ISIC 1992 classification system) describes the persons with ICT education presence in labour force by their employment state;
- Gross Domestic Product per capita as a proxy of the economic development, productivity and socio-economic potential of a country, decisive for country's patent performance.

Secondly, the variables that could be considered as a proxies for country's range of knowledge production activities (*relational dimension*) in terms of:

- High-Tech patents;
- ICT patents;
- Biotechnology patents;
- Nanotechnology patents.

Denoting the technological power of a country's knowledge base.

2.2. The Network Tool: The Knowledge Complexity Index

As expressed in the previous section, it is possible to quantify the knowledge complexity of a country's technological portfolio for a period of time. The KCI used in this paper, is based on the *method of reflections*, developed by Hidalgo and Hausman (2009). In particular, in their work, they showed that the economic complexity of a country is an echo of the product composition of its export pannier. So, their principal idea is the following: the more complex economies produce exclusive goods the more these countries present an exclusive source of

comparative advantage. In this framework, these comparative advantage could be seen as a sort of spatial technological monopoly because of the fact that countries might be emulated by others and, at the same time, the ubiquitous goods present low weights under economic complexity point of view.

Following their style, we have analysed the configuration of the *European country-tech knowledge network*, revealing that country might have a complex technological distribution/combination when it is able to generate knowledge that relatively few others countries could be ready to take off. For the creation of this index, we supposed that European countries are the primary producers of a specific technologies. In this sense the *European country-tech knowledge network* is used as starting point to compute the KCI, in which the technological classes is composed by the country having a relative technological advantage (RTA hereafter) in terms of patenting spread. The *EU country-tech knowledge network* is formulated as a $n \times k$ *two mode matrix* ($M = M_{c,i}$) where $M_{c,i}$ represents the presence or not country's RTA, $c = 1, \dots, n$, in the creation of technological knowledge i ($i = 1, \dots, k$). More deeply, country, c , has RTA in technology i at time t if the portion of technology i in the country's technological portfolio is higher than the fraction of technology i in the entire EU patent portfolio.

Supporting by the *method of reflections*, KCI is determinate by two set of variables: the *density* of countries and the *ubiquity* of the technology classes, as reported in the equation (1) and equation (2) below

$$KCI_{country} = k_{c,i} = \frac{1}{k_{p,0}} \sum_i M_{p,j} K_{i,n-1} \quad (1)$$

$$KCI_{tech} = k_{i,n} = \frac{1}{k_{i,0}} \sum_i M_{p,j} K_{p,n-1} \quad (2)$$

Each additional iteration in $KCI_{country}$ (equation 2) generate a finer-grained estimation of the knowledge complexity of a country using information on the complexity of a technology in which country shows RTA. Furthermore, each additional interaction in KCI_{tech} (equation 2) allows a finer-grained estimation of the knowledge complexity of a technology using information on the complexity of countries that present RTA into the specific technology.

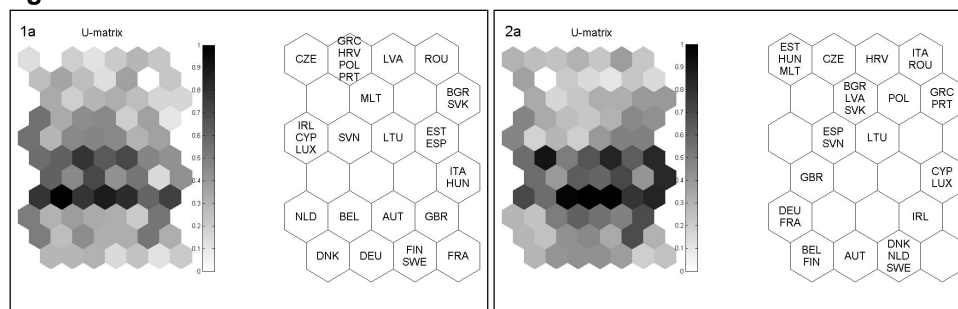
3. The Geography of the European Complex Knowledge

For studying the knowledge complexity of the European countries, we have divided the analysis into two steps: in the first step, we used the SOM approach to provide a short-term analysis of possible presence of spatial relationship between European countries and patent classes. In the second one, we have estimated the knowledge complexity degree through, firstly, the use of the *European country-tech knowledge network*: what emerge from the interconnections between nodes of different types was a network of countries and technologies; and after with the computation and

analysis of KCI related to each European countries. Following, the method of reflections contributes to a more precise measure of the KCI of countries and technologies, where noise and size effects are eliminated because, according to Caldarelli et al. (2012), the iterative method of reflection is an approximation of the fixed-point theorem based on Markov chain analysis.

Concerning the first step, the following Figure 1 exhibits the location of the European countries in 2004 (1a) and after in 2013 (1b). if we focus the attention first on (1a) and after on (1b), there are few, and scarcely significant, movements between the two considered periods.

Figure 1: U-Matrix from 2004 to 2013

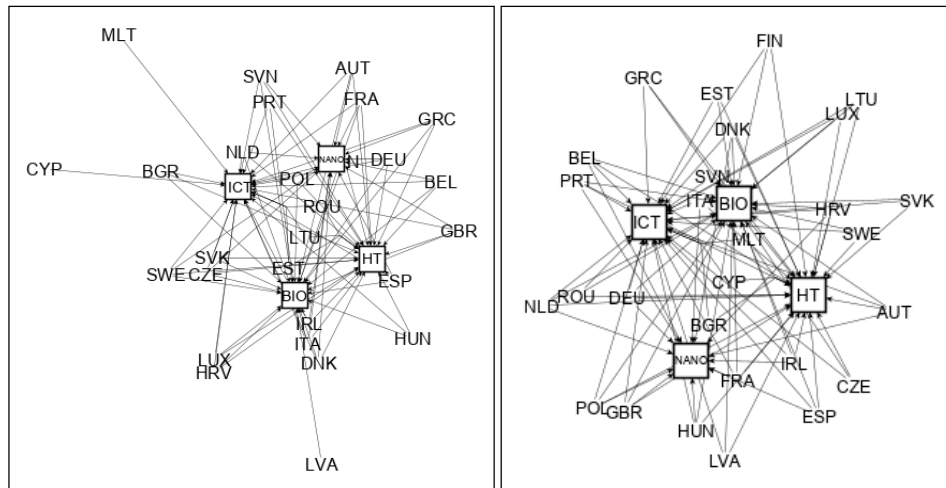


Source: Authors' elaboration

These few movements provoke a clear separation between the Central and Northern countries and the Mediterranean ones; which remain, at the bottom and upper part of the map respectively. As a result, they originate a notable gap between them and the rest of the sample. Following, it is possible to stress out that the East countries, like Romania Bulgaria, and Slovakia, located at the top of the map, show low values in almost all the considered variables during all the considered period of analysis. The previous topographic analysis has unveiled interesting spatial patterns across Europe. However, the question that arises is which country knowledge characteristics could drive the observed spatial patterns. At this point, we paid attention on the measurement of the country knowledge complexity embedded in the European knowledge network. So, centring the attention on the second step of the analysis, we started with the implementation of the *European country-tech knowledge network* for the periods 2004 and 2013. This type of network is referred to a *two-mode network* (Borgatti, 2009) where the principal characteristics is the emergence of linkages between nodes of different types, in this specific case between countries and technologies.

In Figure 2, the European countries are symbolized by nodes, instead patents are presented by squared ones (identified with ICT, BIO, HT, and NANO respectively). It follows that the countries positions in the knowledge space reveal the technological classes in which they display relative technological advantages and the density of their patents across these classes. Indeed the spatial connectivity affects a country network position due to the spillover mechanisms resulting from economic dependencies, agglomeration dynamics or core-periphery structures (Feldermann and Kogler, 2010).

Figure 2: The structure of the *European country-tech knowledge network* from 2004 to 2013.



Source: Authors' computation and visualization

As it is possible to stress out from the above Figure 2, there are rare movements between the two periods of analysis, as profiled during the first stage of our analysis. For instance, it is possible to see a specialization of some countries, especially the Eastern Block in Biotechnologies. More diversified countries instead, occupy the periphery of the knowledge space, in which links between Nanotech nodes are not particularly dense.

Being a simple visual representation, it does not provide a knowledge complexity measurement so, for that reason, it is necessary to provide a statistical analysis using KCI.

Table 1: The Knowledge Complexity Index (years: 2004 - 2012)

	2004	2013		2004	2013		2004	2013
BEL	100.00	100.00	HRV	100.00	100.00	POL	97.30	99.97
BGR	0.00	0.00	ITA	91.37	0.73	PRT	100.00	100.00
CZE	0.00	0.00	CYP	0.00	0.00	ROU	84.06	0.00
DNK	100.00	100.00	LVA	100.00	100.00	SVN	64.87	99.99
DEU	50.00	0.00	LTU	0.00	100.00	SVK	92.03	100.00
EST	0.00	0.00	LUX	28.09	34.49	FIN	0.00	0.00
IRL	0.00	100.00	HUN	78.09	35.22	SWE	66.54	6.77
GRC	100.00	0.00	MLT	0.00	34.49	GBR	100.00	100.00
ESP	54.31	100.00	NDL	92.82	99.92			
FRA	0.00	100.00	AUT	0.00	0.00	EU28	4.00	4.00

Source: Authors' computation

As it is possible to stress out from the previous Table 1, the KCI for the European countries is quite homogeneous over the considered period. In 2004, knowledge complexity is moderately high ($60 < KCI < 80$) in Romania and Slovenia because they presented strong positive innovation performance trend due to their very low starting

innovation proxies values. In comparison, in 2013, their KCI values diverged, from 84.60 to 0.00 for Romania and from 64.87 to 99.99 for Slovenia. This divergence could be explained as follows: in 2004 both countries presented quite similar innovation performance values together with Portugal, Latvia, Cyprus, Hungary and Slovakia. Instead, in 2013, most of the previous countries had managed to improve group membership from the catching-up group to Modest and Moderate Innovators. Slovenia has dropped from the catching-up group and is now a Innovator follower. Romania is still in the same performance group as in 2004. Knowledge complexity is high ($KCI > 70$), for example, in Denmark, United Kingdom and Belgium. These countries tend to develop a number of technologies that could only be replicate in a small number of other European countries. In conclusion, it is also clear from the Table 1, that the leading countries of complex knowledge production are concentrated in few countries, identified for their innovative performance, as Innovation Leaders and Innovation Followers respectively.

4. Conclusions

In this paper, we have introduced a practical application of the method of reflections to the European patent data, describing the spatial patterns and transformation of the complexity knowledge, originated in the European countries from 2004 to 2013. The result of our analysis is the presence of a static geography situation, where only a few European countries, especially the Northern ones, are producing the most complex new technologies. Under this view, the previous considerations are important for the development and implementation of the country's innovation policy. But, speaking in complex knowledge terms, innovation guidelines might be considered a useful instrument for the growing of the related areas but also in that technologies which are more complex than the actual ones.

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DO DOMESTIC CURRENCIES DEPRECIATION WORSEN THE DEFICIT OF TRADE BALANCE? EVIDENCE IN CENTRAL EAST EUROPEAN COUNTRIES

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Abstract: *Central East European Countries (CEECs) may have reliance to import commodities and barriers to export their competitive products after the integration as European Union members. CEECs may also have negative exposure to the economic crisis after their integration in the EU. Foreign Exchange Rate (FER) as a significant factor which is still argued by the previous researchers possibly will impact the trade balance. The interesting perspective in this research is to analyze the condition of FER and trade balance in CEECs after their integration in the EU. CEECs countries may use Euro or USD to trade with their international trade partner. The fluctuation of FER in term of appreciation or depreciation may have influenced foreign trade. This research purposes to examine the direction of fluctuating FER on the trade balance. Data used in this research are used secondary data namely FER, Export, and Import during 5 years from January 2014 until September 2018. The tool of analysis used in the analysis is a regression. In the last five years, Hungary, Poland, Romania have domestic depreciations denominated in Euro. On the other hand, Albania, Croatia, and Czech have domestic appreciations compared to Euro. The fluctuations of the FER in CEECs also have an influence on their balance of trade. The highest determination coefficient denoted in Croatia is 38,8 per cent referring to the variation of FER determining the trade balance. The research hypothesis is accepted in the countries case namely Albania, Croatia, Lithuania, Poland, and Romania. The coefficient result shows two paths of depreciation and appreciation. First, depreciation of domestic currencies may increase the deficit of trade balance with the inelastic price of import and elastic price of export products demand in the same moment. Second, the appreciation of FER may also increase the deficit of trade balance through the elastic price of the import and export commodities demand at a similar time. Finally, the depreciation may also lead to a surplus of trade balance through the elastic price of export and import products assumption. It entails that the countries explicitly the Czech Republic, Hungary, Poland, Slovak, and Slovenia who have a surplus in the trade balance retain and endure the export quantity.*

Keywords: *Depreciation; Appreciation; Export-Import; Trade Balance.*

JEL Classification: *F31.*

1. Introduction

In the early integration in European Union (EU), Central East European Countries (CEECs) rally alarming barriers to their foreign trade in the EU countries, as similar as the countries trade with other countries outside EU markets. These barriers are

in precisely those products of CEECs which are potentially exported to and out the EU countries. However, the import products mobility may increase because of the reliance factor of import goods. The integration runs well and promising for the CEECs (Ahmad & Yang, 1998). Furthermore, trade diversion effects are likely to be benefits to cause economic growth and to increase trade potential for CEECs (Piazolo, 1997). The CEECs may get the benefit to export their competitive products to EU countries. This is really very important as the foreign trade relations of countries positively affect the growth of the global economy and largely determine the quality and standard of living of the population (Pancenکو, E., and Ivanova, T., 2018).

The current environment is characterized by high dynamism, uncertainty and unpredictability of conditions (Melnyk et al., 2017). In addition, the economic crisis hit EU countries but the CEECs may resist the negative impact of the crisis. The economic crisis emphasized the significant role of exports for several EU member countries and especially the CEECs who most of them have a strong foundation of foreign trade. The international crisis hit several EU member countries and also the CEECs (Podkaminer, 2013), as well as, the fluctuation of their foreign trade. The foreign trade of the CEECs had been aimed at the European Union countries when before and after the official integration. Furthermore, the EU-Integration had a significant effect on the mutual trade among the countries. Despite the export of the EU members may tend to decrease, but the performance of CEECs may tend to rise. Because of the resistant condition of the crisis in the EEC, this research takes the CEECs as a research object. The CEECs comprise many countries located in central and eastern European such as Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, the Slovak Republic, Slovenia, Estonia, Latvia and Lithuania. The other interesting reasons are the important role of foreign trade in these countries for economic growth, opened economies, and the high share of exports in GDP (Éltető, 2014; Dvorsky et al., 2018; Baloch et al., 2018). Stronger connections in terms of foreign trade, capital flows in advanced sectors and the growing interdependence between CEECs and EU markets may develop production chains and growth of exports value from the Central and Eastern Europe region passes. Consequently, foreign trade in CEECs likely increases with varying intensity (Cieślík, 2014). The CEECs have prepared an outstanding development in terms of economic development and union from 25 years ago until now (Grela, M., Majchrowska, A., Michałek, T., Mućk, J., Stażka-Gawrysiak, A., Tchorek, G. and Wagner, M., 2017; Klietnik et al., 2018b).

Based on the important role of CEECs in the EU, it is likely a significant analysis to *examine the balance trade* representing the dynamics of foreign trade in developed countries. However, many scholars had also examined the balance trade in developing countries. It describes the foreign trade analysis as a significant aspect in any types of countries. The theoretical analysis states the correlation in the fluctuations of Foreign Exchange Rates (FER) and the balance trade. The high fluctuation of FER may have an impact on the fluctuation of the balance trade amount. In addition, there is still a debatable effect of FER on the foreign trade balance. In one side, there is a negative direction between FER and export values (Arize, A.C., Osang, T. and Slottje, D.J., 2000; Arize, A.C., Osang, T. and Slottje, D.J., 2008). Then another result, it is supported also by Hunegnaw & Kim (2017) that depreciation in FER weakly increases trade balance in East African countries. In evidence from European countries, depreciation of FER deteriorates trade balance

in European transition countries, which could be described that it may happen high import reliance and low export capacity (Begović & Kreso, 2017; Pietrasieński & Ślusarczyk, 2015). In the long run, effective FER may have a positive effect on the balance of foreign trade. Indeed, in the short run, the FER fluctuation may have a negative impact on the trade balance. Based on the theoretical framework in international trade, a real depreciation in the countries may expand the trade balance (Arize, A.C., Malindretos, J. and Igwe, E.U., 2017). Most of the fellows examined that FER has a significant effect on the trade balance in the long run. However, other researchers also studied that FER appreciation does not have any significant effects (Bahmani-Oskooee & Halicioglu, 2017).

In this case, CEECs countries may use Euro or USD to trade with EU members or non-EU countries. The fluctuation of FER may consist of appreciation or depreciation of domestic currency to influence the foreign trade in CEECs. Based on the previous condition and the research gap, the purpose of this research is to investigate the direction of depreciation or appreciation of Foreign Exchange Rate on balance of trade in the CEECs.

2. Literature Review

According to the theoretical concept, a real depreciation of domestic currency compared to the foreign currency may create import goods more expensive and export goods more affordable and simultaneously lead to a variation in the trade balance. However, the effect of the trade balance in a country may not occur immediately at the time of depreciation (Oláh et al., 2017). It may have a lag time. On the reverse, the changes in the export-import product have an immediate effect (Arize et al., 2017). Furthermore, depreciation may reduce the trade deficit as it creates the price of export cheaper and import price more expensive. However, import reliance and lack of export performance could encourage a contrary impact of FER fluctuation in the short run (Begović & Kreso, 2017; Kliestik et al., 2018a).

Elasticity also may create an adverse effect on the trade balance. If domestic demand is inelastic to rise import price and or foreign demand is inelastic through the decrease in prices of commodities or services that are exported from the home country and or the observed country has low supply of elasticity, it means that the demand for the exported products or services get increased because of cheaper export price and not enough capacity in the country to fulfil the increasing demand. If these inelasticities are the current time, the trade balance will not get benefit from the foreign exchange depreciation since it may import the same quantity but higher prices and export as the same amount as at cheaper prices (Begović & Kreso, 2017). Currency depreciation is the decreased value of domestic currency denominated to foreign currency, generally in a floating exchange rate system. However, currency appreciation means the increase of domestic currency value denominated to foreign currency (Goodwin et al., 2015).

The trade balance is the net value of exports and import commodities in a nation excluding the nominal value namely monetary transfers, investment total, and other financial components (Sanusi, K.A., Meyer, D. and Ślusarczyk, B., 2017). A country may have a surplus if the export value surpasses import value. In reverse, a nation may obtain deficit if the import nominal goes beyond export nominal, balance trade also refers to the current account term (Goodwin, N., Harris, J.M., Nelson, J.A., Roach, B. and Torras, M., (2015).

Price elasticity of demand is used to measure the change in the price of products demand. Inelastic price refers to the changes in price have a relatively small effect on the quantity of commodities demand. Meanwhile, elastic price describes the changes in price have a relatively large effect on the quantity of products demand (Walter, 2005; Imran, M., Haque, A.U. and Rebilas, R., 2018).

The hypothesis in this research is depreciation domestic currency to foreign currency exchange rate has positive effect on deficit of trade balance with assumption inelasticity price of import and export product demand (or in appreciation case, appreciation foreign currency to domestic currency has a positive effect on the deficit of foreign trade balance with assumption elasticity price of import and export product demand).

3. Research Method

Variables used in this research are Foreign Exchange Rate and Balance Trade. The variables are described in table 1.

Table 1. Operational Variables in Research

No	Variables	Operational Description of Variables	Measurement
1	Independent (X1): Foreign Exchange Rate (FER)	The domestic currency of each Central East Europe Country which is denominated in euro monthly	Ratio scale
2	Dependent (Y): Balance Trade	The net value between export and import monthly in the domestic currency of each Central East Europe Country	Ratio scale

Source: Arize, A.C., Malindretos, J. and Igwe, E.U. (2017).

Data used in this research are secondary data which is downloaded from EMIS. The data is in time series from January 2014 until September 2018. The period is used starting from 2014 because the year refers to the time after the crisis and time of Central East European Countries integration as EU members.

The tool of analysis used in this study is a regression. Regression analysis used to analyse the causal effect relationship between the influence of the independent variable on the dependent variable. The regression model explains the coefficient of determination analysis, t-test, and the interpretation of the regression coefficient.

4. Results and Discussion

The term Central and Eastern European Countries (CEECs) refers to the set of countries including namely Albania, Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic, Slovenia, Estonia, Latvia and Lithuania. The term CEECs has substituted the initial term for East-Central Europe (ECE). In this research, the case studies have examined the 12 nations in term of CEEC. The results are presented in two systematic order. First, it starts examining the balance trade condition and the fluctuation trend of FER. Second, it observes the direction of FER fluctuations on the foreign trade balance.

The description of their domestics currencies and its fluctuations are depicted in table 2.

Table 2. Currencies and Balance of Trade Between January 2014 and September 2018 in CEECs

CEE Countries	Domestic Currency Denominated in Euro/USD	Fluctuation Trend
Albania	Lek – Euro	Appreciation
Bulgaria	Lev- Euro	Fixed
Croatia	Kuna – Euro	Appreciation
Czech Republic	Koruna – Euro	Appreciation
Estonia	Euro – USD	Depreciation
Hungary	Forint – Euro	Depreciation
Latvia	Euro- USD	Depreciation
Lithuania	Euro- USD	Depreciation
Poland	Zloty – Euro	Depreciation
Romania	Leu – Euro	Depreciation
Slovak	Euro – USD	Depreciation
Slovenia	Euro – USD	Depreciation

Source: EMIS, 2018

The CEECs use euro and domestic currencies namely Albania, Bulgaria, Croatia, Czech, Hungary, Poland, and Romania. The other countries in CEECs such as Estonia, Latvia, Lithuania, Slovak and Slovenia may consider applying euro. Based on the fluctuation trend for 5 years, the domestic currencies in Hungary, Poland, Romania tended to get in depreciation denominated in Euro. However, domestic currencies in Albania, Croatia, and Czech had a tendency in appreciation.

Table 3. Balance of Trade from January 2014 until September 2018

CEE Countries	Export Average Value (in Millions)	Import Average (in Millions)	Balance of Trade Average Value (In Millions)	Trade Balance Condition
Albania	21,727.74	48,357.48	-26,629.57	Deficit
Bulgaria	4,030.93	4,548.08	-224.57	Deficit
Croatia	7,752,718.96	12,488,041.39	-4,735,322.50	Deficit
Czech Republic	332,245.55	296,195.87	36,049.67	Surplus
Estonia	1,034.18	1,178.75	-144.56	Deficit
Hungary	2,439.51	2,234.64	204.86	Surplus
Latvia	904,015.50	1,103,074.00	-199,058.50	Deficit
Lithuania	2,051,896.25	2,232,527.40	-180,631.16	Deficit
Poland	66,947.72	66,833.80	113.92	Surplus
Romania	4,859.31	5,686.61	-827.31	Deficit
Slovak	5,646.23	5,328.77	317.46	Surplus
Slovenia	2,159,017.38	2,106,084.28	52,933.10	Surplus

Source: EMIS, 2018.

Based on the average value of trade balance in CEECs illustrated in table 3, it may conclude that the trade balance of CEECs are grouped into two categories namely deficit and surplus. The first group countries who have a surplus of trade balance are the Czech Republic, Hungary, Poland, Slovak, and Slovenia. The second group of nations who have a deficit in trade balance are Albania, Bulgaria, Croatia, Estonia, Latvia, Lithuania, and Romania.

Results of regression analysis to examine coefficient determination and the effect of domestic **currency on** the trade balance in table 4.

Table 4. Hypothesis Testing

CEE Countries	R ²	Sig	Hypothesis
Albania	0.108	0.015	Supported(*)
Bulgaria	NA	NA	NA (FER is constant)
Croatia	0.388	0.000	Supported (*)
Czech Republic	0.010	0.452	Not Supported
Estonia	0.000	0.990	Not Supported
Hungary	0.011	0.436	Not Supported
Latvia	0.011	0.441	Not Supported
Lithuania	0.053	0.085	Supported(**)
Poland	0.122	0.008	Supported (*)
Romania	0.222	0.000	Supported(*)
Slovak	0.004	0.642	Not Supported
Slovenia	0.017	0.339	Not Supported

Source: EMIS, 2018.(*) with alpha 5%, (**) with alpha 10%.

Based on the determination coefficient (R^2), the value of R^2 ranges from 0.053 until 0.388. The highest R^2 is about 38,8% in Croatia. It means 38.8 % of the variation in a deficit of trade balance is explained by the depreciation of domestic currency based on the assumption that both the inelasticity price of import and export commodities. The other R^2 meaning depends on its value as similar in the previous explanation. According to the significant test compared to alpha 5% and 10%, the hypothesis is accepted in case of countries namely Albania, Croatia, Lithuania, Poland, and Romania. It refers that depreciation domestic currency has a positive effect on the deficit of trade balance with assumption inelasticity price of import and export product demand. It describes 2 pathways in export and import commodities flow. The first path, if the domestic currency depreciates so it has an impact on the increase of import products price and the decrease of export commodities with assumption inelastic price at the same time. Consequently, the aggregate demand quantities of import products still increase and the aggregate demand numbers of export commodities decrease so the deficit of trade balance may increase.

The direction of fluctuation foreign exchange rate on the trade balance is illustrated in table 5. According to the negative coefficient in the regression for Lithuania and Romania case, the conditions are depreciation of domestic currency and deficit of trade balance. The high depreciation of domestic currencies may lead to aggregate import price more expensive and aggregate export price more affordable, then the aggregate demand of the import products may still increase with the inelastic import price assumption and the aggregate demand of export commodities may rise with the elastic export price assumption. These conditions simultaneously may reduce the deficit of trade balance.

Furthermore, based on the positive coefficient in the regression for Albania and Croatia evidence, the circumstances are an appreciation of domestic currency and deficit of trade balance. The high appreciation of the home country's currency may cause deteriorating the deficit of trade balance through the assumption that the elastic price of the import and export commodities aggregate demand at the same time. Referring to the previous assumption, if the domestic currency appreciates so

the import price aggregate will decrease and the import demand will increase. In the export condition, appreciation of domestic currency may lead to a decrease in the aggregate of export demand. On consequence, the deficit of trade balance may rise significantly. This result supports previous results of research namely Arize et al. (2017) and Bahmani-Oskooee & Halicioglu (2017).

Table 5. Foreign Exchange Rate Direction of Trade Balance Summary

CEE Countries	B	Hypothesis	Fluctuation Domestic Currency	Trade Balance	Assumption and Justification
Albania	453.75	S	Appreciation	Deficit	Elastic price aggregate of import and export products aggregate demand
Croatia	5,816, 230.795	S	Appreciation	Deficit	Elastic price aggregate of import and export products aggregate demand
Lithuania	-293, 404.24	S	Depreciation	Deficit	Inelastic price aggregate of import products aggregate demand and elastic price of export products aggregate demand
Poland	6834.5	S	Depreciation	Surplus	Elastic price aggregate of import and export products aggregate demand
Romania	-493.96	S	Depreciation	Deficit	Inelastic price aggregate of import aggregate demand and elastic price of export products demand

Source: EMIS, 2018. S = Supported

Finally, the meaning of positive coefficient in the regression model for Poland analysis, the conditions are depreciation of domestic currency and surplus in the trade balance. The depreciation may also lead to a surplus of trade balance through assumption elastic price aggregate of export and import products aggregate demand. If the domestic currency rises so the import aggregate price will increase then the higher import price may reduce the aggregate demand for import goods. On the export side, the depreciation of domestic currency may have an effect on the lower export price so the demand of export demand may increase. On consequence, the surplus of trade balance may likely increase.

5. Conclusions

Most of the domestic currencies of CEECs tended to depreciate denominated to Euro. It may lead to the deficit of trade balance. The value of R^2 in this research

arrays between 0.053 and 0.388. The highest R^2 value is about 38,8% meaning 38.8 per cent of the variation in a deficit of trade balance is explained by the depreciation of domestic currency with the assumption that inelasticity price of import and export commodities. The Hypothesis tested in this research is supported in cases of countries namely Albania, Croatia, Lithuania, Poland, and Romania. The depreciation of domestic currency compared to the Euro may create import goods more expensive and export goods more affordable and simultaneously lead to a deficit of trade balance. Furthermore, the appreciation of domestic currency denominated to the Euro may make import goods more affordable and export commodities more expensive than these simultaneously increase the deficit of trade balance with the assumption both of import and export price are elastic. Finally, the depreciation of domestic currency may cause the import price more expensive and the export price cheaper than these concurrently may lead to a surplus of trade balance with the assumption inelastic price of import and export products.

It implies that the countries namely the Czech Republic, Hungary, Poland, Slovak, and Slovenia which have a surplus in the trade balance maintain and sustain the export quantity more competitive. It is suggested to investigate the competitive export products and the inelasticity values of export and import commodities.

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THE IMPACT OF DEMOGRAPHIC CHANGES AND MIGRATION ON ECONOMIC GROWTH WITHIN EMU COUNTRIES

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Abstract: *At the present time, demographic changes and migration are two economic and social challenges very debated within countries that are part of the Economic and Monetary Union, and also subject of various articles, books and studies. Over the years, various theories have attempted to explain demographic changes and migration and many economists and researchers tried to figure out the relationship between the two concepts and economic growth of both sending and receiving countries. The debates have argued the following statements: demographic changes and migration generally can promote, restrict or have no impact on the economy of a country. Likewise, the aim of this paper is to provide an analysis of the impact of demographic changes and migration on the economic growth of the EMU countries. This paper provides a theoretical framework of demographic changes and migration at international level, which emphasize the relevance and consequences of these two concepts on the economic growth of countries. Furthermore, is illustrated a summary of the Economic and Monetary Union, its main function and the benefits of the single currency in all European countries. An analysis of several demographic changes and migration indicators in EMU countries is also submitted, in order to highlight the situation in EMU countries. The research methodology entailed both quantitative and qualitative analysis. Statistical indicators regarding demographic changes and migration in EMU countries were used for research and a qualitative analysis made through discussions concerning the impact of demographic changes and migration on the economic growth of EMU countries. The results of this research emphasise that EMU countries are facing important demographic changes: an ageing population, low fertility rates, high duration of working, a high life expectancy at birth and a high number of immigrants. These changes could cause in the future important issues for the economy of the EMU countries. Furthermore, regarding the economic effects of migration for both sending countries and receiving countries, the debates have highlighted that can vary (both can experience gains/losses). In conclusion, EMU countries should take into account demographic changes and migration when they operate towards economic growth.*

Keywords: *demographic changes; migration; economic growth; EMU countries.*

JEL Classification: *F22; J11; J19; J61; R23.*

1. Introduction

This research paper intends to assess demographic changes and migration within EMU countries, and subsequently, to discuss the impact of demographic changes and migration upon economic growth.

Currently, demographic changes and migration represent two of the economic and social challenges and opportunities of the Economic and Monetary Union. In order to support the labour force and employment in the Euro area, different policies are required to be adopted and implemented within European Union and Member States, with regard to demographic changes and migration.

Over the past years, demographic changes and migration have strongly influenced the EMU labour market and therefore, there have been changes in the ethnic and national profile of the Member States. A high number of people from different areas migrated to the Euro area, as conditions were more favorable than those in their native countries. Regarding the impact of demographic changes and migration on the economic growth of the EMU countries, we contend that for both sending countries and receiving countries, the economic effects of migration can vary (both can experience gains/losses).

2. Literature Review

Demographic changes and migration constitute two important issues, raised and addressed until the moment in various research papers, books and other works, and are considered to have a substantial connection with the economic growth of a country. Hereinafter, it is to be fulfilled a segregate approach of the two concepts - demographic changes and migration, as a result of literature investigation.

Generally, demographic changes shall cover changes in population structure, due to various reasons. According to Investopedia (2019), demographics is the study of population based on factors such as age, race and sex.

According to Bloom et al. (2001), the link between population change and economic growth is a very discussed subject amongst researchers, and there is an ongoing debate about whether population change it (1) restricts, (2) promotes, or (3) is independent of economic growth. Demographic changes have a significant impact on economic growth, therefore it can affect the GDP of a country. For example, if the population of a country lowers, it directly influences the reduction of input. The economic growth of a country it also depends on the changes of the number of people in the workforce.

Furthermore, there are two theories with regard to the relationship between demographic changes and economic growth: an optimistic and a pessimistic alternative. The pessimistic theory belongs to Thomas Malthus, which is regarded as the father of demography. Malthus concluded that if the rate of population will grow, the food production could not possibly increase fast enough to be sufficient, and as a consequence, it will have a negative impact on the economy of the countries which will face this issue (Ježić, 2018).

As opposed to Malthus, the optimistic theory, which belongs to Esther Boserup, states that extra people do more work and bring more thought to bear human problems. Therefore, Boserup considers that people are productive and inventive, and the more they are, countries will have more workers, more consumers for the

industrial goods, the more taxes can be paid, and the more trade can take place (Ježić, 2018).

At the present time, active ageing is a new challenge for countries and shall consist of life-long learning. Lee and Manson (2010) highlighted that a high number of elderly people will eventually cause growing transfers from the working population to the elderly (high tax rates, family support burdens).

In recent years, the family pattern has been subject to major changes, as follows: the number of marriages has decreased whereas the number of divorces has increased; the age at the first marriage has went up; the model of non-parent family has experienced a large-scale; the families want fewer children; the number of children out of wedlock has increased.

Theoretical approaches regarding migration concept have been boundless over time. Many authors attempted to find a unique theory able to encompass migration. Ordinarily, migration shall mean a phenomenon which can be explained by the behavior of people and social realities.

The International Organization for Migration (2011) defines migration „as the movement of a person or group of people, either over an international border or within the same state, and may include: the migration of refugees, of displaced persons, of economic migrants and of people moving for various other reasons”.

The migration phenomenon may be classified in accordance with the following criteria (Europe Direct, 2013): a) on a territorial link: internal or international migration; b) in terms of time factor: permanent or temporary migration; c) on the basis of motivation: voluntary or involuntary migration; d) in line with means employed: regulated or illegal migration.

One of the Ravenstein's (1885) laws of migration states that economic factors represent the main cause of migration.

Furthermore, a number of authors have argued that the phenomenon of migration is influenced by a combination of economic, environmental, political and social factors (Chirvas et al., 2015): either in a migrant's country of origin (push factors) or in the country of destination (pull factors).

OECD (2014) pointed that migration is good for the economy: is considered to be positive for the labour market, for the public purse and for the economic growth. Hence, those above have been explained thereby: (1) On the labour market, migrants occupy significant niches, contribute to labour-market flexibility, and at the same time, young migrants are considered to be better educated compared with those up for retirement; (2) Regarding the public purse, migrants contribute in taxes and social contributions; (3) In terms of economic growth, migrants arrive with skills and contribute to human capital development and to technological progress.

3. The Economic and Monetary Union - A Step in the Integration of European Union Countries

The Economic and Monetary Union (EMU) was founded in 1992, as a major step in the integration of all EU countries and entails the coordination of economic and fiscal policies, a common monetary policy and a common currency - euro (European Commission, 2019). The Euro area is a monetary union of 19 of the 28 European Union Member States (Table 1) which has adopted the euro as their common currency (Wikipedia, 2019). The remaining countries of European Union (Bulgaria, Denmark, Croatia, Poland, Romania, Sweden, the Czech Republic, Hungary and

United Kingdom) participate in the economic union, but not in the monetary union, as they have to complete the third stage of the introduction of the euro (WorldData, 2019).

Table 1: EU countries within EMU and the year of commencement

Austria (1999)	France (1999)	Latvia (2014)	Portugal (1999)
Belgium (1999)	Germany (1999)	Lithuania (2015)	Slovakia (2009)
Cyprus (2008)	Greece (2001)	Luxemburg (1999)	Slovenia (2007)
Estonia (2011)	Ireland (1999)	Malta (2008)	Spain (1999)
Finland (1999)	Italy (1999)	Netherlands (1999)	

Source: www.worlddata.info

The admission within EMU requires compliance with certain protocols (admission criteria): (a) the countries must be EU member states; (b) the economy of the countries must comply with the following: the inflation rate must not be lower than 1.5% of the most price stable EMU country, the countries must not be indebted more than 60% and the new debt must be less than 3% (WorldData, 2019).

A single currency in all European countries is considered to support a more effective single market, which benefits companies and the population (European Commission, 2019).

4. Methodology and Discussions

Within this article, we used both quantitative and qualitative methods. Statistical indicators regarding demographic changes and migration were used for the research. Information has been carried over by Eurostat and Worldometers, and as indicators have been chosen the following: indicators concerning population; total fertility rate; life expectancy at birth; duration of working life; the number of immigrants and emigrants. Statistics regarding migration phenomenon were submitted by a Eurostat article from March 2019, which will be further updated in March 2020.

The statistics we used in this chapter were synthesised in the format of tables and charts. Moreover, a qualitative analysis has been made through discussions concerning the impact of demographic changes and migration on the economic growth of EMU countries.

4.1. Analysis of Demographic Changes in EMU Countries

In April 2019, have been 338,7 million inhabitants within EMU countries (Worldometers, 2019), equating to 66.35% of the EU population, 45.57% of the Europe population and 4.4% of the world population. An evolution of the population of EMU countries, from 2016 until April 2019, is shown in Chart 1. Data show an upward trend of the EMU countries population in the past four years. According to Worldometers statistics (2019), in the following EMU countries has been recorded a downward trend of the population: Italy, Estonia, Greece, Latvia, Lithuania and Portugal. This situation was mainly caused by low fertility rates, high life expectancy and the movement of the population. Furthermore, in 2018, 51.2% of total population of EMU countries were females and 48.8% were males (Eurostat, 2019a). Regarding age structure, in EMU countries, people of working age have the highest share in total population, followed by older persons and young people (Eurostat, 2019a).

What is worrisome for these countries is an increase of elderly people, which will have consequences in the long run for the economy.

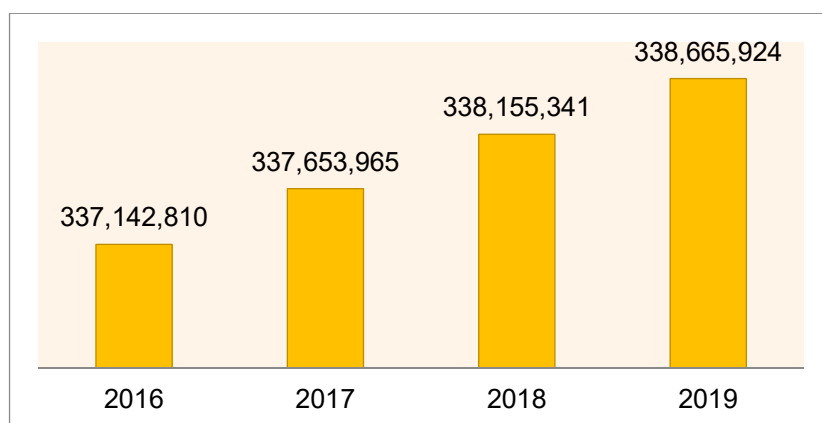


Chart 1: Population in EMU countries (number of people, 2016-2019)

Source: processed from Worldometers

Total fertility rates within EMU countries, for the year 2018, are shown in Chart 2. At a first glance, it can be noticed that the total fertility rate is highest in the following countries: France, Ireland, Belgium, Netherlands, Finland. Countries like Greece, Portugal, Spain and Cyprus are faced with low rates of fertility. Reasons why these countries face low fertility rates could possibly be: the use of contraception, the growing number of educated women, a greater access of women to the labour market or religious reasons.

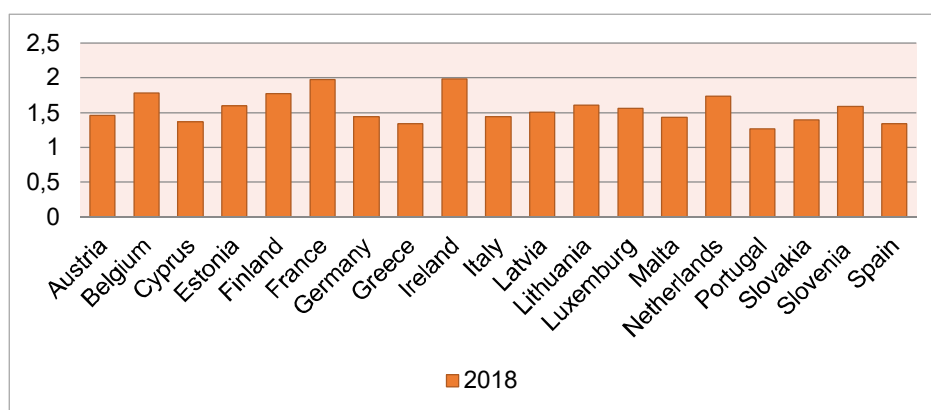


Chart 2: Total fertility rate in EMU countries (2018)

Source: processed from Worldometers

The duration of working life in EMU countries, for the year 2018, is summarised in Chart 3. Based on this information, the following observations have been outlined: Netherlands, Denmark, Finland, Estonia and Germany have the highest duration of working life. On the other side, Belgium, Greece and Italy have a lower duration of working life.

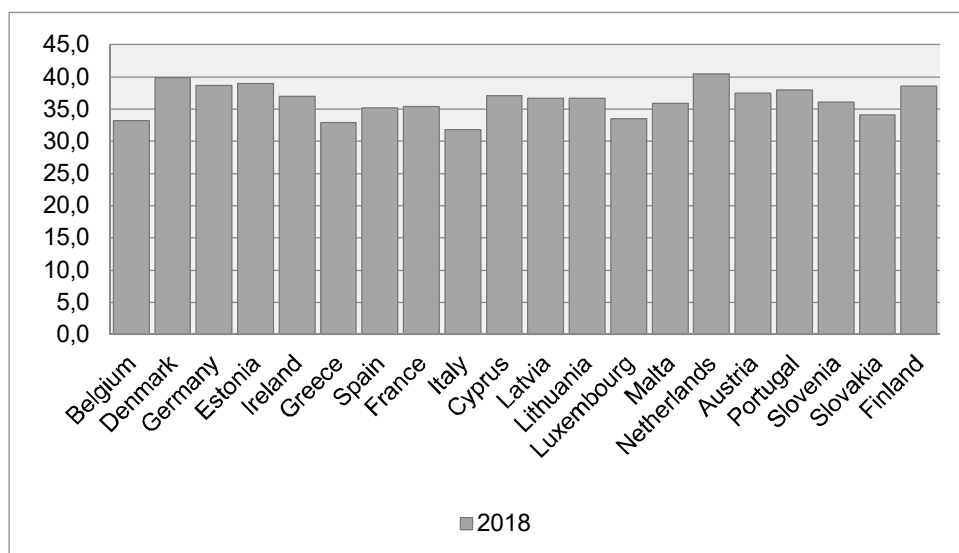


Chart 3: Duration of working life in EMU countries (years, 2018)

Source: processed from Eurostat

In Chart 4 is shown life expectancy at birth in EMU countries for the year 2017. Statistics highlight that in Spain, France, Italy, Cyprus, Luxemburg and Malta, life expectancy at birth is higher than in the other countries. Latvia, Lithuania, Slovenia and Estonia are facing with low life expectancy at birth.

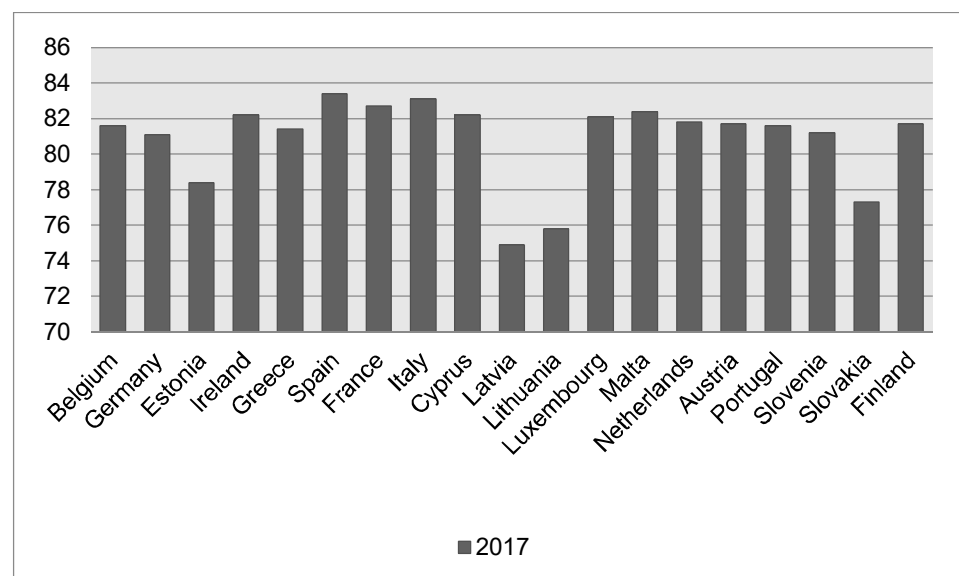


Chart 4: Life expectancy at birth in EMU countries (2017)

Source: processed from Eurostat

4.2. Analysis of Migration in EMU Countries

With regard to emigration, Eurostat (2019) states that it is difficult to measure emigration phenomenon, because keeping track of people who leave the country is much more difficult to be done than keeping track of people who arrive, due to proceedings. According to European Commission (2019), the following EMU countries reported the largest number of emigrants in 2017: Germany (560.7 thousand), Spain (368.9 thousand) and France (312.6 thousand). Furthermore, the analysis will focus with consideration upon immigration. The evidence submitted by Eurostat (2019) highlights the following: (1) the country with the largest number of immigrants was Germany (917.1 thousand); (2) Spain (532.1 thousand), France (370 thousand), Italy (343.4 thousand) and Netherlands (189.6 thousand) have also reported a large number of immigrants; (3) the countries with the lowest number of immigrants were: Slovakia, (7.2 thousand), Latvia (9.9 thousand), Slovenia (18.8 thousand).

Chart 5 shows an evidence of the number of non-national immigrants who entered into EMU countries in 2017, by categories: citizens of other EU Member States, citizens of non-member countries and stateless. It can be noticed that in Greece, Spain, France, Italy, Latvia, Lithuania and Portugal, citizens of EU non-member countries possess the largest proportion in the total number of non-national immigrants. Furthermore, within Belgium, Ireland, Cyprus, Luxembourg, Malta, Netherlands and Slovakia, the highest share in the total number of non-national immigrants is held by citizens of other EU Member States. In Germany, citizens of other EU Member States and citizens of EU non-member countries possess a share approximately equal in the total number of non-national immigrants. A low share of stateless immigrants has been recorded only in the following countries: Germany, Spain, Latvia, Lithuania, Netherlands, Austria and Finland.

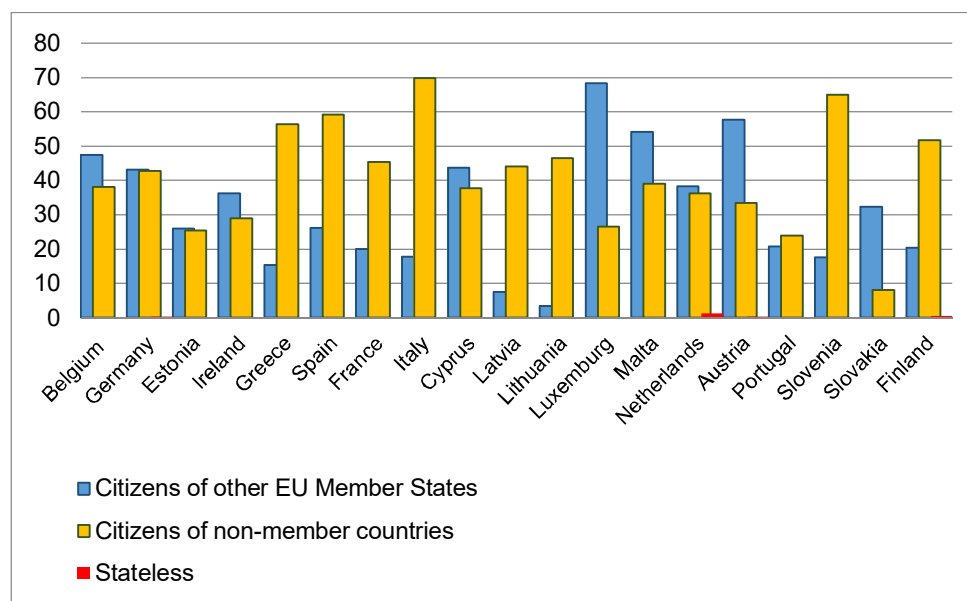


Chart 5: The number of immigrants by categories (2017)

Source: processed from Eurostat

Furthermore, in 2017, among EMU countries have been also recorded the following statistics regarding immigration phenomenon (Eurostat, 2019): (1) in terms of gender distribution of immigrants, in the majority of EMU countries has been recorded a higher number of men in relation to women, and (2) the immigrants that entered in EMU countries were much younger than the total population resident in the country of destination.

4.3. Discussions on the Impact of Demographic Changes and Migration on the Economic Growth of EMU Countries

We emphasise that *demographic changes* may give rise to the following effects on the economic growth of the EMU countries:

(1) Considering that the majority of EMU countries are experiencing an ageing process, mainly fuelled by a reduction of the fertility rate and an increase of life expectancy, their economy may be affected thereby: into the labour market will appear concerns in terms of employment policies, the consumption of goods and services is about to change up on new age groups, the process of saving will gradually decrease.

(2) If the population of EMU countries continues to age, this fact would cause difficulties in State budget: more expenditures with social protection and pensions funds will increase.

(3) The educational system of these countries will also encounter various issues due to demographic changes: there will be a reduction of young people, human resources development will face new challenges. The smaller the fertility rate is within a country, the smaller will be the number of young people. Likewise, the educational system could experience massive changes.

Regarding the impact of *migration* on the economic growth of EMU countries, have we outline the following circumstances:

(1) The definitive establishment of individuals in the country of destination is going to lead to a reduction of population in the country of origin, having as repercussion the reduction of economic growth. The country of origin will lose citizens who would have worked, paid taxes, consumed and saved money.

(2) Taking into consideration that oftentimes young people and people of working age are the ones that most leave a country of origin, the consequences will lead to an accelerated process of ageing in the home country.

(3) As regards the immigration of young people, the home countries will be confronted with reduced fertility rates, which will lead to a small number of newborn babies.

(4) In the case of families who emigrate and children remain in the home country, the effects will be both positive and negative: with money received from the country of destination, the persons who have remained in the home country will consume and pay for goods and services (which will foster national economy); on the other hand, due to distance, between families is hereby established a cold relationship which sometimes leads to family issues and disruptions.

(5) A positive impact on the country of destination will be an increase in employment, most of the time in fields wherein their population would never work. The immigrants support the economic activity of the destination country, by paying taxes and consuming goods.

5. Conclusions

Demographic changes and migration represent two of the economic and social challenges and opportunities of the Euro Area. With respect to the impact of demographic changes and migration on the economic growth of the EMU countries, we contend that for both sending countries and receiving countries, the economic effects of migration can vary (both can experience gains/losses).

In EMU countries, demographic changes have experienced alterations in the last years. The number of inhabitants has increased, the growing number of elderly people constituting a worrying situation. Fertility rate is high only in some countries, while life expectancy at birth is generally high in all EMU countries. We think that all countries should at least adopt and implement policies regarding demography, in order to maintain a steady situation and prevent alarming circumstances.

At the best of times, individuals have chosen to move or to work in a country that is part of the Economic and Monetary Union, because there are available a large selection of opportunities, much more attractive than the situation in their home countries. The country with the largest number of immigrants in 2017 was Germany (917.1 thousand), being followed Spain (532.1 thousand), France (370 thousand), Italy (343.4 thousand) and Netherlands (189.6 thousand), which have also reported a large number of immigrants. These countries provide attractive opportunities to individuals, and this is mainly the reason for which is happening such a thing.

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THEORIES OF COMPETITION

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Abstract: *This study presents some of the most important theories about competition, its mechanism, its role, and its effects. The sequential competition makes a huge difference among strategic economic interactions, characterised by oligopolist competition, on the chain supply markets. It is presented as a form of networking, as a widespread game where competitors play different roles and each one of them follows the other. Inside competition struggle, equilibrium is depending on the utility. In this extensive game competitors play different roles and each one of them is subsequent to the next one. The attempt to explain the mechanism of competition must be understood through different theories of the past. The purpose of this study is making a comparison between competition theories of important economic authors, and also to try to establish which model would be the best. As stages, I have tried to define competition, and then configure the role of competition according to market determinants. The competitive perspective depends on the theoretical approach that we apply to the market, and therefore on the competitive theory chosen for criticism. The research also has a historical perspective upon competition development.*

Keywords: *competition; the role of competition; creative destruction; invisible hand; cooperation.*

JEL Classification: *D41; D42.*

1. Introduction

Competition is a very active form of free initiative, a free initiative generated by private ownership, which in turn is an essential feature of a market economy whose mechanism is competitive, and it represents the open confrontation, the rivalry between economic agents, selling the bidders to attract the clients

First, I intended to define and structure the concept of competition and engage this concept in models described by great economy authors like: Adam Smith, Alfred Marshall, Von Hayek, Joseph Schumpeter, Kirzner, Porter, Bain, J. E. Stiglitz.

Each of those authors, that I have mentioned has a different perspective upon the competition structure. The evolution of those perspectives is being determined by economical and mathematical expressions and calculations associated.

The most important variables that determine competition are: price, costs, quality, quantity of work, the balance between supply and demand, the level of profits, outputs and inputs of goods.

Understanding the concept of competition starts from understanding the role of competition.

I also wanted to explain concepts like: "barriers to entry on the market", market equilibrium, the concept of "creative destruction", which are very important in configuring the lines of the whole concept.

In this context, market equilibrium is being conditioned by the choices that entrepreneurs make between practicing competition or cooperation.

2. The Concept of Competition

Competition concept tries to unify different concepts about competition and economy in a global framework. (Listra 2015) To understand competition we need to concentrate on concrete, realistic matters. Also many misunderstandings occur when we come to explain the whole complex.

Competition and competitiveness are used in business and economic public discussions according to their objectives.

The concept of competition contains many explanations and can be perceived as: rivalry, the absence of barriers to entry and exit, a selection mechanism, price taking behaviour.

Competition means rivalry between individuals, groups or nations, and it arises when two or more parties strive for something that all can obtain (Stigler, 1988).

This negative sense of competition means struggle, conflict of interests and contest.

2.1. Definition of Competition

Competition is a sine qua non element about the existence of market economy, a true regulatory force for it.

It can be defined as the "confrontation between economic agents with similar activities, exercised in the open field of the market, for the purpose of winning and preserving the clientele, in order to profit from their own enterprise." (Barbu, 2011, p.5).

The objectives of competition aim at:

- understanding the variables of competition (price, quantity, quality etc).
- targeting the level of achievement
- finding a competitive process that is determining the strategic objectives

"Rational competition" is a modern concept, that comes from mixing the neoclassical competition paradigm with the austrian economics (Hayek 1996, Kirzner 1978, Porter 2004, 2008).

Competitive firms and companies can be classified as:

- internally and externally static firms
- firms that are able to easily adapt
- firms that are able to adapt by improving their capacities
- firms that are able to influence competition

Competition renders from the level of uncompetitiveness to the level of very competitive.

The levels of competition depends on the income and outcome levels.

Economic theory describes three levels of competition:

- from firms to market and industry level
- from local, regional to country level
- from small firms to international country level

The objectives of competition have to be sustainable and achievable.

The field of competition must contain the following elements: objectives, strategy, external / internal factors, business environment/ industry market, market networks, institution processes (Listra 2015).

2.2. The Role of Competition

Competition is a crucial component of the mechanism required for any economic changes and can be thought as an interaction process, in an environment characterised by incomplete information, irreversibility and imperfection.

If we look more closely at the conditions that must be fulfilled in order to produce perfect competition, we realize immediately that outside of agricultural mass-production there cannot be many instances of it.

Thus we can speak more of Monopolistic Competition, because entrepreneurs use prices and quality strategies for their own purposes, and each manager will have his small market.

The case of oligopoly contains no determinate equilibrium at all and there might be an endless sequence of moves and countermoves, an indefinite state of warfare between firms. (Laino 2011)

Competition has many positive aspects: it keeps us alert and helps us assess our strengths & weaknesses, it makes us creative, helps us manage the success & failure, increases our quality, makes us persevere and engages us for the long term planning.

The negative effects of competition can be: society becomes unproductive, entrepreneurs become corrupt and in the end it leads to exhaustion.

Joseph Schumpeter considers the process of "creative destruction" as essential to the dynamics of capitalism, but also that state intervention is crucial for competition. Many times he ridicules the concept of market equilibrium and he vouches more for monopolies, oligopolies and the ability to realise the economies of scale, the standardize production and the advantage of the control markets.

More important for competition at high level, Schumpeter pays attention to innovation.

Schumpeter defines capitalism as a "process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroys the old one, incessantly creates the new one.

Destruction becomes an essential fact about capitalism". (Schumpeter, 1942, p1)

The theory of "creative destruction" is an expansion of Marx's theory of capitalism, and Schumpeter considers this to be essential to the dynamics of capitalism.

3. "Barriers to Entry on the Market"

J. Bain, considers that a "barrier to entry is an advantage of established sellers, which is reflected in the extent to which established sellers can persistently raise their prices above competitive levels without attracting new firms to enter industry" (Bain 1956, p3).

Next, the competitive price level concept was replaced by a concept of hypothetical price, of a long term balance, inside perfect competition and finally he changed it into the concept of minimum average costs (Bain, 1956).

In conclusion the condition of barrier existence is to be valid, if the scale price is situated above the average costs of production.

J. Ferguson defines the "barriers to entry on the market", as a factor that is transforming the potential entrants from profitable agents into unprofitable ones.

The enterprises can fix their prices above the marginal costs and obtain monopolistic profit (Ferguson 1974).

J. Bain and N. Coterelli agree upon the idea that “ barriers to entry” take place when a sale price exceeds the average costs of production in the long run(Coterelli, 2002). G.J. Stigler considers that barriers to entry cover the production costs(for specific or at any level of scale) that have to be incurred by enterprises who are entering the business and are not incurred by entities that have already been on the market (Stigler, 1968).

H. Demsetz thinks that barriers to entry constitute various opportunities that occur among enterprises in business and outside of it. Their action is connected with the necessity of incurring additional costs which can't be reimbursed after entering the market (Demsetz, 1982).

4. Economies of Scale

Economies of scale represent in microeconomics the cost advantages that enterprises can obtain because of scale operations, measured by the output produced, calculated as costs per unit of output that is decreasing with an increasing scale or quantity.

Economies of scale occur when the average cost starts to fall, while the outputs grow, and also anytime when this cost is lower than the average cost.

The concept was invented by Adam Smith and the idea of growing the production is related to the use of the division labour.

Diseconomies of scale are opposed to the economies of scale.

Table 1. Barriers to entry on the market

No.	Barrier	Author (authors) (year)
1.	Product differentiation	Bain J. (1956), Heflebower R.B. (1957), Baron D. (1973)
2.	Absolute cost of economies of scale: capital barrier, the level of sunk costs	Bain J. (1956), Heflebower R.B. (1957), Baron D. (1973), Solop S. (1979),
3.	Economy of production scale	Bain J. (1956), Heflebower R.B. (1957), Baron D. (1973).
4.	Amount of factories inside enterprises	Saving T.R. (1961), Lyons B.R. (1980),
5.	Level of expenditure on advertisement, In an advertisement or sales factor	Greer D.F. (1971), Strickland A.D., Weiss L.W. (1976), Orstein S.E. (1973).
6.	Average size of entity in concentrated branch	Ornstein S.E. (1973)
7.	Law aspects	Solop S. (1979)
8.	Contract between buyer and seller	Sheperd W.G.(1973), Aghion P., Bolton P. (1987)

Source: (Tomasz Bernat, 2019)

5. Competition vs. Cooperation

Motto 1: "Homo homini lupus est" (Man is a wolf for men).

Competition and cooperation have each one of them positive and negative aspects. Normal people in general choose competition, especially due to the fact that cooperation is part of the context of current capitalism.

For example, in sports, competition has always positive effects, because the most capable ones are victorious.

That is why the winners will be those who deserve, and those who do not deserve will lose.

Even the Bible, says "You will know men by fruit"(Matthew 7:15-20).

That is the fact that in a context of money and not necessarily a christian context, we must compete with one another to save our skin.

But in reality capitalism is not so close to Christianity, such as the case when we come to talk about competition, nor is the world in which we live Christian predominant.

Philosophers often talk about competition as a reflection of enlightened selfishness. In order to be competitive, we must focus on personal interest and afterwards check the interest of the majority.

In a competitive world, we tend towards a model in which each of us follows our individual interest.

This perspective is also described in the book "Leviathan" by Thomas Hobbes (1588-1697).

In his book Hobbes, skeptically describes man's way of characterizing him as an aggressive being prepared to attack his fellow men anytime.

He defines man as a wolf, "Homo homini lupus est".

By accepting this condition, people seem to be in a state of war against one another. Each struggles against the neighbour for the individual's good, by "bellum omnia contra omnes".

Hobbes explains positivism as being stupid and deceptive, because in the present informal warfare state the property of each of us is threatened.

In this way the world will be governed by the concept of the highest law in which the strongest will lead.

The generalization of this hostility can lead to the disappearance of industry, earth culture, lifting and moving instruments, time measurement, which would lead to the emergence of a generalized fear of violent death.

Competition, says Hobbes, alters the concept of human love, and normal individuals try to save themselves from it's influence.

But, Hobbes's theory draws attention to the negative elements of competition.

A pro competitive slogan will sound like: "Fools are only the ones who do not make money!".

In reality, there could be a participatory sense of society, but only at socially close levels of income.

The competition punishes those who remain in the queue, those who do not take risks, but also the ones who are not performant.

Competition indicators can be classified into:

- Sectorial indicators
- Indicators of the relevant market

Sector Indicators:

- Number of enterprises in the sector
- Mobility rate in the sector
- Penetration rate of imports
- The Herfindahl-Hirshman Index (HHI)
- Average figure of business / employee / sector
- The degree of differentiation of products in the sector
- Presence of economies of scale
- Concentration Ratio (CR)

Relevant Market Indicators:

- Evolution of ROE / ROA Profitability Rates

ROE= NetIncome/Shareholder Equity

ROA= NetIncome/Total Assets

- ROBOR (Romanian Interbank Offer Rate) is the interest rate at which the banks contributing to the calculation of this index are willing to lend in the form of deposits in lei to the other contributing banks

- The incidence of consumers petitions
- Barriers to entry on the market
- Evolution of the price of the product
- Other specific heaters

Calculation formulas:

Mobility rate in the sector

Mobility rate = (number of companies 2011-number of companies 2012) / number of companies 2011

Import penetration rate = annual import volume / product annual consumption

The herfindahl-Hirschman index (HHI) is most often used to measure market concentration.

It ranges from 0 (perfect competition) to 10000 (monopoly).

$HHI = \sum (i = 1 \text{ to } n) S_i^2$

Where n = represents the number of active enterprises on the market

S_i = the market share of the enterprise.

The degree of concentration varies from low to high.

Table 2. Concentration degree HHI value:

Concentration degree HHI	HHI value:
Low	<1000 <1500
Medium	1000-2000 1500-2500 2500
High	2000 – 2500

Source: (Competition Council Bucharest, 2012)

Turnover / employee / sector is an average productivity indicator.

The degree of differentiation of products in the sector is measured by:

- Differentiation through horizontal features
- Differentiation by vertical quality

6. Theories of Competition

6.1. The Concept of "Invisible Hand"

The "invisible hand" is a metaphore used by Adam Smith, trying to explain the circumstances in which welfare is achieved.

The concept was launched in, "The Theory of Moral Sentiment" and "The Wealth of Nations" by Adam Smith, 1776.

The "invisible hand" is represented by the forces of self-interest, competition, the balance between supply and demand and it represents the dynamic mechanism that ensures the efficient allocation of resources in society.

J.E. Stiglitz Nobel laureate for Economics argues that: "The reason why the invisible hand seems often invisible is because it is often absent!"

Stiglitz also believes that free market is producing too little knowledge and too much pollution.

Noam Chomsky also contests the success of the "invisible hand" in the economy.

He believes that the invisible hand destroys the community, the environment and human values in general, even the masters, that is why the business group often demands the state's help, to be protected by the forces of the market.

E. K. Hunt is also skeptical about the idea of the free market.

He introduces "The invisible leg" concept.

Hunt affirms that the "invisible foot" assures us that in a free market economy, each person is pursuing only his or her own interest, automatically and with the highest degree of efficiency.

"The invisible foot" tends also to maximize the common misery.

(E.K. Hunt 2011, Medeleian, 2010).

The "invisible hand" process involves two processes:

- filter processes passing through elements corresponding to the structure
- balancing processes by which the local conditions of the structure correspond or are adapted

In terms of competition Smith discovers the importance of the "invisible hand" as a lever not only for his self-interest, but good also for the whole society (Smith, 1776).

6.2. Alfred Marshall about Competition

Marshall's theory explains that the modern forms of industrial life are different from the old ones by being more competitive.

The meaning of competition is defined by the races between people as salespersons or buyers.

This race is a secondary accidental consequence from modern industrial life.

The balance between good and evil is determined by the distance between competition and cooperation.

The term competition gathers a sense of selfishness and indifference between human beings.

Selfishness seems to be more and more related to the modern form of industry.

Marshall treats competition starting from small communities to large ones.

Anyways he finds competition in many ways evil, but essential for maintaining the energy and spontaneity.

The purpose of competition is searching for comfort and luxury.

At first human nature seems to be uncertain about engaging in competition, this is perceived more like an anti-social phenomenon.

In modern age, competition is not well suited to describe industrial life.

In modern times competition is being stimulated by the concepts of freedom of industry, enterprises and economic freedom (Marshall. 1890 (8th edition: 1920).

John Stuart Mill believes that the law of strongest will survive and this is what characterises competition nowadays. (Mill. 1849 (1909).

6.3. Bertrand Competition Theory

Bertrand model on competition was named after Joseph Louis Francois Bertrad(1822-1900).

His model is based on the interactions between sellers and buyers and the negotiation for quantities and prices.

It has been formulated by Bertrand, in a critical review of Antoine Cournot's book "Recherches sur les Principes Mathématiques de la Théorie des Richesses (1838)".

Cournot thinks that if the firms choose quantities instead of prices, than the equilibrium outcome will take the prices above the marginal cost and the competitive price. Bertrand argues that if the firms choose prices instead of quantities than the profits will set the prices at the same level as the marginal costs, so he votes for price strategy, instead of quantity strategy.

Francis Ysidro Edgeworth in 1889 establishes a mathematical model for Bertrand's idea. Bertrand's duopoly equilibrium model explains the correspondence between the level of prices, unit costs and profits.

If one firm establishes the prices equal to marginal cost, and in this case if the competitor firm will raise it's price above the unit cost, it will lose, it will earn nothing, because all the customers will still buy from the firm that has the privilege upon competitive prices on the market.

The equilibrium is given by the competitive price strategy. Other prices will not obtain equilibrium.

If both of the firms will set prices above the unit cost, than both firms will encounter high competition, each one of them will try hard to double the profits.

In this case there won't be any equilibrium if both of the firms will set prices above the unit cost.

If the firms will set different prices, the one that is setting the higher price will earn nothing. The best strategy for the firms with the higher price will be to lower the prices and absorb some of the customers.

The state of equilibrium can be considered only when both firms are setting their prices equal to unit costs.

Bertrand model explains the connection between constant marginal costs, firm prices level and the monopoly prices level and the way that the firm can obtain the demand according to those variables.

6.4. Cournot (1801-1877) Vision upon Competition

His model describes competition between companies based on the output that each company produces.

Cournot competition is named after Antoine Augustin Cournot(1801-1877).

This model has the following features:

- more than one firm produces homogeneous product,
- many firms or companies are not cooperative

- the firms control the market and are powerful, any decision could affect commodity prices
- there exists a fix number of firms
- firms compete in large quantities and pick large quantities at the same time
- firms are economically rational and have strategies oriented for the purpose of maximizing their profits

Cournot duopoly model of equilibrium depends on the marginal cost.

Notation:

p_1 = firm1 price, p_2 = firm2 price

q_1 =firm1 quantity, q_2 =firm2 quantity

c =marginal cost

Equilibrium formula prices will be:

$$P_1=p_2=P(q_1+q_2)$$

This implies that the profit will be $Pr = q_1(P(q_1+q_2)-c)$

Cournot theorem claims that for an arbitrary number of firms $N > 1$, where quantities and prices evolve normaly, the equilibrium formula is as follows:

Market demand: $P(q) = a - bq = a - bQ = p(Q)$

Cost function: $c_i(q_i) = cq_i$

Individual firms output: $Q_i = Q/N = a - c/b(N+1)$

Total industry output: $\sum q_i = Nq = N(a - c)/b(N+1)$

The market clearing price: $P = a - b(Nq) = a - NC/N+1$

Individual firm profit: $Pr = [(a - c/N+1)(a - c/N+1)](1/b)$

When we don't have fixed costs of production, N goes to the infinit and Nq goes to the competitive level, when the prices go to the level of marginal cost

$$N = (a - c/\sqrt{Fb}) - 1$$

$$Q = \sqrt{Fb}/b$$

N =number of firms

Q =production for each firm

Fb =fix cost for each firma

$$\lim_{p \rightarrow \infty} c$$

$$N = (a - c/Fb) - 1$$

$$Q = Fb/b$$

Those formula are known as Cournot equilibrium or Marshall equilibrium formulas.

7. Conclusion

The extent to which economic agents are invested in the competition fight depends on their choice between competition and cooperation.

The goal of competition aim at success, luxury and comfort, but competition often develops an anti-social behavior, through the negative propensity that entrepreneurs develop in their struggle for profits.

Through those interesting ideas about competition i wanted to show the role of it in economy, and pull the signal upon the negative aspects of this economic slope.

The market equilibrium, in the context of competition is determined by simple variables such as prices, costs, profits, and state intervention in economy.

If Smith and Marshall's models described competition as part of the inertia of the economic system, being accentuated by concepts like "invisible hand" and being influenced by production activity and industrial development, Bertrand's model considers that the competitive phenomenon is conditioned by price dynamics, the

quality and quantity of the products sold, and Cournot's model explains that the competition phenomenon is influenced by marginal cost evolution.

Similarly, Bertrand and Cournot models explain the evolution of profits in terms of price dynamics, market quantities, quality of goods and services, and fluctuations between unit costs and marginal costs.

The arguments try to prove that competition is a imminent framework of our lives, and we have to inherit education in order to survive in the future.

Thanks to scientific research, we can easily measure competition using market indicators such as: persuasion, market concentration, profit level, number of sellers and buyers, rotation of capital, etc.

Because competition is a dynamic process, it must be deployed between businesses and economic entities, not between people.

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SOCIAL ENTREPRENEURSHIP: EVOLUTIONS, CHARACTERISTICS, VALUES AND MOTIVATIONS

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Abstract: *Social entrepreneurship has known a constant evolution as of the second half of the XXth century. Despite some ambiguities within the definition of the term and the circumscription of the social entrepreneurship activity, it differentiates by a series of characteristics, values and motivations: its social mission, the highlight on persistence, altruism, morality. The paper is a theoretical - synthesizing undertaking on the definitions, evolutions and characteristics of the social entrepreneurship. The comparative analysis of social entrepreneurship and profit-oriented entrepreneurship highlights the following as the main characteristics of social entrepreneurship: its social mission, the capitalization and combination of resources for covering certain unsatisfied needs, the creation and development of social equity, the production of goods and social services at the lowest costs. The conclusions highlight the issues that the social entrepreneurs have to deal with, but also the opportunities of permanent development for this sector.*

Keywords: *social entrepreneurship; social entrepreneurship emergence; characteristics.*

JEL Classification: *L31; O35; A113; D64.*

1. Theories on the Apparition of Social Entrepreneurship

The entrepreneurship term is generally associated with the private sector and profit, which somewhat renders paradoxical the jointure between terms "entrepreneurship" and "social". However, when it is regarded as the initiation and implementation of an activity, it does not act within the economic field alone, but also in the social, political or cultural field.

The conceptualization of the term has gone through several phases, within which the sphere of the term has been under a permanent extension: from the activity of producing "new things", meaning an innovating activity (Schumpeter, Say, Marshall, Hagen etc.) to all those who own their own business (Van Der Sluis et al., 2008), then to those who work on their own or work within a company which is also owned by them (Berglann et al., 2011).

As of the second half of the XXth century, a new concept finds its place within the economic literature, the concept of social entrepreneurship, which is different from the classical one as it does not aim at profit, but at social objectives (Noruzi et al., 2010, Weerawardena & Mort, 2006) and of which Bornstein (2004) states that it can change the world, and Harding (2004) regards it as a new economic engine. Borzaga, Defourny (2001) even talks about a coincidence "between the emergence of the first experiences of social enterprises, at the end of the 1970s, on the one hand, and the decline in the rates of economic growth and the rise of unemployment that occurred in the same decade, on the other" (p.352). The decrease of economic performances in the Western countries has deeply affected the social security

systems by technically imposing the entry of other agents on the goods and social services market, respectively the entry of social entrepreneurs.

A peculiar situation seems to stand out in Japan, where, for a lot of time, it was considered that the state is the only one responsible for social issues. This opinion has changed a lot lately as the social entrepreneurship sights out underserved communities, old people, women, etc. Tanimoto (2008) analyses a new social entrepreneurship strategy, respectively the social innovation clusters, which include "social enterprises, support organizations and research institutes are located, interrelated in the neighbourhood, and promote social innovation"

The non-profit entrepreneurship will have to perform activities that have a social impact (decrease of poverty and social exclusion, increase of educational quality, environment preservation, decrease of drug consumption, etc.) in order to attract resources and receive financing. Thus, a new area of entrepreneurship which is also understood in a different manner: narrowly, it only sights out enterprises with social objectives (Thompson, 2002), and widely, it sights out enterprises that, along with the social objectives, they also aim at profit (Lepoutre și colab., 2013) or the ones that, besides profit, also follow social objectives (Johnson, 2000, Light, 2006, Bornstein, 2004). Dees synthetizes the social enterprise spectrum in the following table:

Table 1. The social enterprise spectrum

	Purely Philanthropic	Purely Commercial	
Motives, Methods, and Goals/Key stakeholders	Appeal to goodwill Mission driven Social value	Mixed motives Mission and market driven Social and economic value	Appeal to self-interest Market driven Economic value
Beneficiaries	Pay nothing	Subsidized rates, or mix of full payers and those who pay nothing	Market-rate prices
Capital	Donations and grants	Below-market capital, or mix of donations and market-rate capital	Market-rate capital
Workforces	Volunteers	Below-market wages, or mix of volunteers and fully paid staff	Market-rate compensation
Suppliers	Make in-kind donations	Special discounts, or mix of in-kind and full-price donations	Market-rate prices

Source: Dees, 1998, p.59

Dees characterizes the exclusively philanthropic entrepreneurship in terms of reasons, methods and objectives by: appeal to goodwill, mission driven and social value, and, in terms of stakeholders, by: pay nothing (beneficiaries), donations and grants (capital), volunteers (workforces) and make in-kind donations (suppliers).

On the other hand, the purely commercial entrepreneurship is defined in terms of reasons, methods and objectives by: appeal to self-interest, market driven and economic value, and, in terms of stakeholders, by: market-rate prices (beneficiaries), market-rate capital (capital), market-rate compensation (workforces), and market-rate prices (suppliers).

In the middle of the two edges there are the "hybrid" enterprises which aim at both social and economic objectives, even if the highlight is on one or the other category of objectives.

Tanimoto (2008) presents the situation of the non-profit sector related to the profit sector in a similar manner, specifying that between them there are "intermediate corporations and cooperatives, but they are not so developed as well in Europe" (p.4). Leadbeater (1997), on the other hand, identifies the social entrepreneurship sector as being at the cross-cut between the public and the private sectors and at the cross-cut between each of them and the volunteering sector, and he considers that this may be the promoter of the accumulation of social equity and of the new institutions paired with new ideas, as a condition for social-economic modernization. As to social enterprises aiming at profit as well, it must be specified that, beyond certain competition related disadvantages in relation to profit-oriented enterprises consisting of a managerial capacity and credibility which are low on the market, less qualified workforce, a poor health condition of impaired employees, social enterprises also benefit from a series of advantages such as: fiscal facilities, the possibility of using volunteering, attracting donations, facilities for procurement and products sale, etc., which would allow them to gain profit.

However, as opposed to Skloot (1988), an adept of "Creating Ventures To Earn Income", Dees (1998) draws the attention upon the fact that the preoccupation of social enterprises for gaining profit could alienate them from their social mission: "Like the proverbial tail wagging the dog, commercial funding can put a non-profit away from its social mission" (p.58). He highlights the fact that "non-profits should keep in mind that commercial programs don't need to be profitable to be worthwhile" (p.64).

On the other hand, many enterprises that aim at profit, especially the large corporations, perform Corporate Social Responsibility (CSR) activities. Tanimoto (2008) intercepts three dimensions of CSR: the adoption of an ethical conduct, a conduct of social fairness within the performance of business; the performance of certain social businesses such as "R&D of environmentally friendly products, Development of products and services for the handicapped and the elderly, Eco-tours, Fair trade, and Community development project"; philanthropic activities such as: "Community Support Utilizing Corporate Management Resources, Social contributions: 1) through donations, 2) through utilizing of their facilities and employees, 3) through core business activities" (p.6). Sure enough, CSR is also a component of corporate marketing, as the purpose is the image improvement within the community. Unlike social enterprises that get financing and attract external resources, the CSR activity is performed with own resources.

A synthesis of social enterprises in terms of source of income, objectives and property, is found in the report of Social Enterprise London entitled *Introducing Social Enterprise* (2001):

It is noticed that the Private sector, Socially responsible business, Social enterprise and Charity and voluntary sector cross in terms of source of income or purposes or property. The government is the only one to not have cross points in such terms; however, it is responsible for the economic policies and legislation within the field. Therefore, Private sector, Social enterprise and Socially responsible business gain income out of sales; the purpose of Social enterprise, Charity and voluntary sector and partially of Socially responsible business is the social purpose; as to property, the sectors are clearly delimited between the private, social and public property.

Table 2. Social Enterprise in A Wider Context

	Private sector	Socially responsible business	Social enterprise	Charity and voluntary sector	Government
Income source	Enterprises-Income from Sales			Grants and Donations	Taxes
Goal	Private goals	Social goals			Political goals
Ownership	Private ownership		Social ownership		Public ownership

Source: Social Enterprise London, 2001, p.3

These points of interest also generate a certain interdependency between sectors to the meaning that "a community in which social enterprises operate clearly benefits from redistributive action, the enterprises improve their reputation and engender relations of trust. In turn, social enterprises, like other third sector organisations, also influence redistributive public policies. By providing services to new groups of people with needs not fully recognised by public policies, they can move public resources toward these services.

Moreover, social enterprises often mix their productive role with more traditional advocacy activities in favour of the same or other groups of users" (Borzaga, Defourny, 2001,p. 356).

Leadbeater (1997) identifies the possibilities by which social entrepreneurship may be supported by the private, respectively public sector. Thus, the public sector may provide managerial consultancy, more extended financial arrangements for social projects, competences and technical resources, initial and growth financing, association with mature social enterprises. The public sector may contribute in various ways to the support and development of social entrepreneurship: local administrations may set up special departments to provide for a good connection and to represent social entrepreneurship within local councils; the national states may improve and simplify the legislation within the field, they may support the creation of a wider network of social entrepreneurs or they may improve the tax policies to the favour of social entrepreneurship; the European Union itself may support this sector by a better financing of social entrepreneurship projects, respectively by facilitating research in this field (pp.80-84).

According to Tanimoto (2008), the method of organization of social enterprises depends on several constraints: market constraints (a project with a high social value but a small number of consumers must be based mostly on donations), financial constraints (the access to loans from banks is limited in terms of banks that regard the loan as risky, as well as in terms of investors due to the difficulties in reimbursement) and social constraints (there is a certain lack of trust in non-profit organizations which are often associated with lack of professionalism, volunteering) (p.13).

The emergence of social entrepreneurship "is due to a mix of factors, some being common to almost all countries, though with varying relevance, while others are more specific to one or some of them" (Borzaga, Defourny, 2001,p. 352). The first

factor is the separation of social services financing, which remains under the responsibility of the state, from the provision of such services by social entrepreneurs. Another factor is passing from passive policies for integration onto the labour market, which are promoted by governments, to the active policies, which are proposed by private entrepreneurs.

Even though social entrepreneurship offers only a small part of social security services and employs a small part of underserved persons, it contributes to the positive change of the social system, to local social and economic growth. Thus, social entrepreneurs use a variety of resources, including donations or volunteers, make lower costs.

Social entrepreneurship may be a significant component within the process of growth of the occupancy rate and also within the process of coverage of certain needs, especially if it extends its scope beyond social services, respectively towards the improvement of environment, cultural services, transportation, increase of educational quality, aspects that are already found in some communities. As such, social entrepreneurship exceeds the traditional frame of social economics (the third sector), being incorporated within an innovative activity of resource combination, production of new goods and services to respond to new needs.

2. Social Entrepreneurship Characteristics

The social entrepreneurship definitions and characteristics, which are numerous and varied, focus on certain aspects of the same or on the differences within it and the profit-oriented entrepreneurship. However, all of them have a fundamental common element: role, social mission, regarded as an improvement of the living condition of underserved persons and their families, or as a radical change of the entire social system. Another common element is noticed lately within these definitions, respectively the sustainability of the environment, the social order and the social enterprises.

“Social entrepreneurship is the process of identifying, evaluating and exploiting opportunities aiming at social value creation by means of commercial, market based activities and the use of a wide range of resources” (Bacq, Janssen, 2011).

Social entrepreneurship differentiates from traditional NGO's as it prefers competition instead of cooperation, innovation instead of dedicated practices and as it takes considerable risks. However, research notices that “countries with higher rates of traditional entrepreneurial activity also tend to have higher rates of social entrepreneurial activity” (Lepoutre și colab., 2013)

Some authors consider that “The work of social entrepreneurs creates value in several ways. They operate as a kind of research and development wing of the welfare system, innovating new solutions to intractable social problems. They often deliver services far more efficiently than the public sector. Most importantly, they set in motion a virtuous circle of social capital accumulation. They help communities to build up social capital which gives them a better chance of standing on their own two feet” (Leadbeater, 1997, p.3).

We regard the following as the essential characteristics of social entrepreneurship: the relationship with the community, altruism, morality, persistence and social innovation.

The relationship with the community is compulsory for social entrepreneurship for the performance of its mission. Social entrepreneurship often lingers locally,

enterprises are small, they capitalize the community potential and understand its needs better, given the proximity between demand and offer. Social enterprises must be accepted by the community, which is when the community understands the importance of social enterprises for producing goods and social services, it grows up, it adopts social values, it acknowledges the social issues and gets involved in their resolution. As a matter of fact, volunteers come from the community and social entrepreneurs find great support in their activity, and also a part of resources as donations comes from the community. Many of the products and services performed by social enterprises are intended to private households. Moreover, the community validates the products and services performed within social enterprises, and their quality, as long as such products and services are regarded as a common good. In the end, in the community within which such enterprises work well, the number of workplaces is increased and so is the income of certain persons, the social wellbeing and the degree of social integration.

Altruism is an attitude that derives from moral values that stand for a behaviour that is to the favour of others. In the case of social entrepreneurship, altruism is a *sine qua non* condition for the success of the activity precisely because it does not aim at its own interest, but at the interest of others; there are cases when social entrepreneurship loses on personal grounds, but wins regarding the interest of those aimed at by its activity. As a matter of fact, "social enterprises make a contribution to the creation of social capital, by developing solidarity and mutual help, by expanding trust and facilitating citizens' involvement in the solution of social problems, through the promotion of volunteering and the involvement of users" (Borzaga, Defourny, 2001, p. 360)

Morality includes the entirety of moral values that are able to support the social entrepreneurship which is associated by Scott & Rothman (1992) with "Companies with a Conscience". These moral values and the unitary action is invoked by Adam Smith in...

The main resource used by social entrepreneurship are people; thus, the interhuman relationships, the social equity must be maintained and developed. The desirable moral values of social entrepreneurship are kindness, trust, compassion, respect and dignity. However, these values must not appropriate the meaning of activity to a dependency on facilities and governmental benefits.

Persistence is an important characteristic of social entrepreneurship as only persistent activities can truly bring social value. However, the dependency on donations or subsidies renders the social entrepreneurship's persistence poor, as persistence first of all means financial stability. In 2003, Boschee and McClurg claimed that "as long as non-profits continue to be dependent on contributions from individuals, grants from foundations, subsidies from government and other forms of largesse, they will never become sustainable or self-sufficient" (Boschee, McClurg, 2003, p. 3). Given the above, a varied financing strategy is required, including gained income (Nicholls, 2006, p.148). However, the gained income is not always sustainable given the difficulties that many social enterprises encounter and sometimes the lack of trust in their perception within society. On the other hand, social enterprises are small and thus short-living of an average of 12 years. This is not necessarily a negative aspect, as it is referred to by Schumpeter as being a process of "creative destruction", by which ineffective enterprises or "permanently failing organizations" (Meyer and Zucker 1989) are replaced by other more innovative and efficient ones (Schumpeter, 1950).

In social terms, persistence could also mean the sustainability of the idea of social entrepreneurship or the development of a mentality that favours non-profit activities, volunteering, solidarity in general

Innovation is a general characteristic of entrepreneurship; it is defined by Schumpeter (1934) by five elements: a new good, new production methods, new markets, new sources of raw matters, new organizations. However, profit-oriented enterprises may be successful even when they do not promote innovation, while social enterprises must find answers to the new social realities. As to social entrepreneurship, innovation consists of new products and social services meeting the social needs, new categories of beneficiaries needing such products and services, new social relationships, even a new social system.

An important role in promoting social innovation is played by social innovation clusters defined as "an organizational accumulation, which includes social enterprises, support organizations, funding agencies, universities and research institutions" (Tanimoto, 2008, p.16) and which are responsible for new social solutions and social values. They are distinguished from industrial clusters in that they do not only cover a sector but also include more sectors, they operate outside geographical boundaries and are closely connected to the community.

Cooperation is indispensable to social entrepreneurship. It is performed around a mission, usually the coverage of some unmet needs, and trains supporters, beneficiaries, volunteers, local communities. The mission is a beacon for the whole activity and it is feasible especially when it's a clear one, coherent, ambitious, empowering, but also flexible in order to allow adaptation to new situations that may arise along the way. An important role in this respect is the responsibility of the entrepreneur who must know how to communicate the mission and to spirit the interested parties, to be convincing and to induce innovative thinking, to be visionary and realistic, and, especially, to be a developer of support networks (Leadbeater, 1997, pp. 53-60).

Cooperation also becomes imperative among social enterprises in order to overcome their isolation. A network of enterprises and social entrepreneurs would allow the dissemination of good practices, a specific labour market, exchanges of staff or joint vocational training.

3. Conclusion

Social entrepreneurship crosses the historical eras at a higher or lower intensity depending on the social needs to which no answers or solutions can be found by the state. It takes different forms depending on the era in which it is manifested and also depending on the social entrepreneurs; it differentiates itself from profit-oriented entrepreneurship by pursuing social values above all.

Currently, social entrepreneurship is gradually changing the mentality of the social economy, based mostly on redistribution, into a productive and entrepreneurial behaviour. It is noteworthy for the contemporary era the fact that profit-oriented entrepreneurs have also begun to engage in social missions, under aegis of the social responsibility of corporations (CSR).

Social entrepreneurship is characterised by a considerable degree of internal fragility caused by an insufficiently clear and coherent legislation, doubled by a range of other shortcomings: insufficient awareness of the role of social enterprises in the society and in the economic system; the trend towards isomorphism (option for stable forms,

the beneficiaries of public subsidies); the high costs of managing social enterprises, generated by the competing interests of the employees, volunteers, customers, the local community; small size of social enterprises which do not allow the latter to meet the major challenges of the economic or social grounds. A challenge from the profit-oriented entrepreneurship for the social entrepreneurship is added on the grounds that it does not fall into the consecrated type of entrepreneurship and that it benefits from tax and competition related facilities, as well as from social public and work policies, which often are rigid and incoherent (Borzaga, Defourny, 2001, pp. 361-369).

However, social enterprises have the chance to grow further, to help increase employment, social integration, and to respond appropriately to new social and community needs. This opportunity is supported, on the one hand, by the skills of social entrepreneurs: entrepreneurial, innovative and transformative skills, and on the other hand, by the values of social entrepreneurship: the relationship with the community, altruism, morality, sustainability, innovation, trust, cooperation.

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AN ECONOMETRIC APPROACH ON SHADOW ECONOMY IN EUROPEAN COUNTRIES

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Abstract: *The present article investigates the relationship between shadow economy as a percentage of GDP, direct and indirect taxes, taxes centralized by the government, personal and corporate income taxes, value added taxes. The country sample encompasses EU-28 member states, alongside Iceland and Norway, while the period analyzed spans from 2004 until 2016. By means of four econometric models that took into consideration linear and nonlinear effects, analyses indicated that there was a strong relationship between shadow economy and fiscal pressure across all countries.*

Keywords: *shadow economy; taxation; direct taxes; fiscal pressure; income tax; corporate tax.*

JEL Classification: *D33; E65; H26; P44.*

1. Introduction

The topic of shadow economy is more current than ever within European and world economy. In my opinion, shadow economy is one of the causes that triggered the 2007 world financial crisis with its two components: world banking crisis and country sovereign debt crisis. Generally, an increase in the underground economy generates a decrease in taxes levied. At the same time, its increase generates a lack of financial resources for public investment, which in turn generates a shortage of jobs financing the public pension funds. Last but not least, the underground economy is one of the causes prompting the emergence and development of organized crime, drug and human trafficking. Underground economy is a result of tax evasion and it generates a decline in citizens' living standards, rising inflation and an increase in public debt. There is a close link between underground economy and fiscal pressure in the sense that an increase in fiscal pressure can generate a rise in the underground economy. Fiscal pressure indicates the level of tax burden levied by tax authorities on personal and corporate income. At the same time, many authors consider that shadow economy can be estimated as a percentage of GDP. The global financial crisis has imposed the need for a stronger fiscal reform, which is directly linked to the banking system. According to the literature (Batrancea et al., 2013), the banking crisis has unraveled numerous inconsistencies of governmental policies. Moreover, similar crises in Latin American countries were elicited by inefficient policies focused on low taxes and fixed currency conversion rates (Batrancea et al., 2009a).

The current paper has the following structure. Section two briefly reports relevant studies investigating the topic of shadow economy. Section three includes the research hypotheses, the econometric models and estimated outcomes. Section four highlights the results of the study and concluding remarks.

2. Literature Review

The literature investigating the topic of shadow economy across countries is constantly growing (Batrancea et al., 2018; OECD, 2017; Schneider and Enste, 2002; Schneider and Klinglmaier, 2004; Schneider and Williams, 2013). The present article investigates the link between shadow economy and fiscal pressure in 30 European countries during a 13-year period. By means of various methods estimating the size and development of the shadow economy phenomenon, Schneider and Buehn (2018) conclude that estimates may differ from one approach to another because no method can be considered flawless. Torgler and Schneider (2016) study the relationship between shadow economy, tax morale, and institutional quality and contribute to the literature by determining the importance of informal and formal institutions in mitigating shadow economy. Zaman and Goschin (2016) introduce a new synthetic shadow economy index that includes three indicators: size of shadow economy per capita; shadow economy as a percentage of GDP; countries' shares in EU total shadow economy. Starting from their results, the authors report that the process of estimating the size of the shadow economy should take into consideration multiple indicators. Moreover, Trebicka (2014) analyzes shadow economy based on the MIMIC (Multiple Indicators Multiple Causes) model and covariance structures.

Panel data techniques have also been constantly used. Manolas et al. (2013) assess the impact of various factors on the size of the shadow economy using data from 19 OECD countries corresponding to the period 2003-2008. Results show that shadow economy growth is triggered by the following factors: quality of governance; product regulatory framework; labor and credit markets; tax burden of entrepreneurial activity; compliance cost. Moreover, their results represent the benchmark for assessing the level of gains Greece might obtain if the country could implement best or at least average practices similar to the OECD countries.

Schneider (2007) reports shadow economy estimations for 145 countries (developing, transition, highly developed OECD members) corresponding to the period 1999-2005. According to his conclusions, shadow economy mitigates corruption in high income countries, but it increases corruption in low income countries. On the other hand, Feige (2016) investigates estimates of shadow economy levels released by various international agencies, emphasizing that the MIMIC model is far from providing accurate results.

Fiscal pressure and shadow economy are important phenomena within empirical research mainly because they are linked to tax compliance (Batrancea et al., 2012a, 2012b; Nichita and Batrancea, 2012). After estimating shadow economy levels corresponding to 162 countries (developing, Eastern European, Central Asia, high income OECD members) for the period 1999-2007, Schneider et al. (2010) conclude that shadow economy is mainly influenced by: an increasing tax burden (direct and indirect taxes); multiple labor market regulations; the quality of public goods and services; the state of the official economy.

One must acknowledge that financial ratios are, in general, extremely helpful in studying aspects like shadow economy and fiscal pressure, which indicates the fiscal obligations a taxpayer is subject to, depending on his income and wealth (Batrancea et al., 2009a,b,c; Moscviciov et al., 2010). In his paper, Schneider (2011) determines the size of the shadow economy and the characteristics of the labor force performing

undeclared work, as part of the shadow economy. In another paper, Schneider and Buehn (2012) emphasize a very important aspect: despite the fact that tax evasion and shadow economy do not share identical components, businesses operating within shadow economy base their success on evading taxes; for this reason, it can be stated that mitigating tax evasion may trigger a similar effect in the size of the shadow economy. Considering this aspect, the authors propose a model of estimating shadow economy with seven variables: taxes; social security contributions; quality of institutions; regulations; public goods and services; tax morale; deterrence.

In this current paper, the link between shadow economy and fiscal pressure is analyzed by means of four econometric models, using data corresponding to 30 European countries (28-EU members, Iceland, Norway) for the period 2004-2016.

3. Method and Research Hypotheses

Taxation indicators corresponding to the 30 sampled countries and spanning the period 2004-2016 were used for the analyses. Data were retrieved from the European Commission Annual Macro-Economic (AMECO) database and Schneider, Buehn and Montenegro (2010), Schneider and Buehn (2018) for shadow economy levels. The sample pool comprises both Economic and Monetary Union (EMU) and non-EMU country members.

3.1. Analysis of Central Tendency and Variation of Fiscal Pressure and Shadow Economy Ratios

Using the data retrieved from the AMECO database, the following indicators have been computed:

- Indicator 1: Direct taxes ratio (DT_GDP) = Direct taxes/Gross domestic product
- Indicator 2: Personal income taxes ratio (PIT_GDP) = Personal income taxes/Gross domestic product
- Indicator 3: Indirect taxes ratio (IT_GDP) = Indirect taxes/Gross domestic product
- Indicator 4: Company income taxes ratio (CIT_GDP) = Company income taxes/Gross domestic product
- Indicator 5: Value added taxes ratio (VAT_GDP) = Value added taxes/Gross domestic product
- Indicator 6: Personal income tax rates (PIT)
- Indicator 7: Company income tax rates (CIT)
- Indicator 8: Value added tax rates (VAT)
- Indicator 9: Social contributions ratio (SC_GDP) = Social contributions/Gross domestic product
- Indicator 10: Shadow economy ratio (SE_GDP) = Shadow economy/Gross domestic product

As a first step, the statistical indicators of central tendency and variation for the shadow economy ratio and the fiscal pressure ratios were determined. Table 1 displays overall mean, median and standard deviation.

Table 1: Overall mean, median and standard deviation computed for the period 2004-2016

Indicators	SE_GDP	CIT_GDP	DT_GDP	IT_GDP	PIT_GDP	SC_GDP	VAT_GDP
Average	19.61505	2.987392	11.79890	13.86555	21.29827	11.55058	7.674393
Median	18.60000	2.554177	10.87608	13.49767	19.71278	12.25564	7.553471
Maximum	35.30000	12.54848	34.02579	22.78901	59.29594	17.01753	12.97095
Minimum	7.500000	0.808625	4.348799	8.669091	7.956074	0.057948	3.872102
Observations	390	390	390	390	390	390	390

Source: Own computations.

From the table above, it can be seen that the European countries included in the sample registered higher values for SE_GDP, PIT_GDP, DT_GDP, IT_GDP and lower values for SC_GDP, CIT_GDP, and VAT_GDP. In the same time, the average shadow economy was 19.61% of GDP, while the highest taxation ratios were registered by PIT_GDP and the lowest values were registered by CIT_GDP and VAT_GDP. On one side, this indicates the existence of an incentive for public and private investments, on the other hand it emphasizes a decrease in consumption prices and inflation.

Table 2: Descriptive statistics for the period 2004-2016

Indicators	SE_GDP	CIT	PIT	VAT
Mean	19.61505	23.75322	39.42613	20.77564
Median	18.60000	24.75000	42.07000	20.00000
Maximum	35.30000	38.70000	62.28000	27.00000
Minimum	7.500000	10.00000	10.00000	15.00000
Observations	390	390	390	390

Source: Own computations.

From Table 2, it can be seen that European countries registered higher values for PIT and CIT, and lower values for SE_GDP and VAT. In the same time, the highest average taxation rates were registered by PIT and the lowest values were registered by CIT and VAT. Namely, it means that budgetary resources have increased based on the levying of corporate income tax and personal income tax. In addition, these resources have increased due to the levying of VAT.

3.2. Analysis of Correlation Regarding Fiscal Pressure and Shadow Economy Ratios

Regarding the correlation coefficients, two significance thresholds were considered: 0.01 and 0.05. The first threshold shows that the correlation coefficient is equal to 0 with a probability of 99%, while the second threshold shows that the correlation coefficient is equal to 0 with a probability of 95%. Table 3 indicates the correlation matrix for the shadow economy and fiscal pressure indicators of the European countries analyzed.

Table 3: Correlation matrix corresponding to the shadow economy and fiscal pressure indicators

Ratios	SE_GDP	CIT_GDP	DT_GDP	IT_GDP	PIT_GDP	SC_GDP	VAT_GDP
SE_GDP	1.000000						
CIT_GDP	-0.179027	1.000000					
DT_GDP	-0.569381**	0.340741	1.000000				
IT_GDP	0.126055	-0.137363	0.243073	1.000000			
PIT_GDP	-0.519512**	-0.004178	0.886652***	0.220465*	1.000000		
SC_GDP	-0.136845	0.030595	-0.276976*	-0.108969	-0.396268*	1.000000	
VAT_GDP	0.351679*	-0.083479	0.048505	0.705922***	0.005294	-0.218731*	1.000000

Note: *Correlation coefficients significant with $p < 0.1$; **Correlation coefficients significant with $p < 0.05$; ***Correlation coefficients significant with $p < 0.01$. In the table above, one can identify negative correlations for the majority of indicators, excepting IT_GDP and VAT_GDP.

Table 4: Correlation matrix corresponding to the shadow economy and fiscal pressure indicators

Ratios	SE_GDP	CIT	PIT	VAT
SE_GDP	1.000000			
CIT	-0.408415**	1.000000		
PIT	-0.545907**	0.531834**	1.000000	
VAT	-0.037659	-0.148195	0.226231*	1.000000

Note: *Correlation coefficients significant with $p < 0.1$; **Correlation coefficients significant with $p < 0.05$. In the table above, one can identify negative correlations between the indicators and SE_GDP.

In the following, the relationship between shadow economy and fiscal pressure was analyzed in order to understand the effects on fiscal pressure on the size of shadow economy across Europe.

3.3. The Econometric Models

The software package EViews version 9.0 was used to run the analyses for testing the econometric models. The analyses included the Least Squares Panel method, which is generally employed in estimating equations for time series data.

Therefore, the four research hypotheses have been formulated:

H1: There is a linear relationship between shadow economy ratio, personal income tax rates (PIT) and company income tax rates (CIT).

H2: There is a linear relationship between shadow economy ratio (SE_GDP), personal income tax rates (PIT), company income tax rates (CIT) and value added rates (VAT).

H3: There is a linear relationship between shadow economy ratio (SE_GDP), personal income tax ratio (PIT_GDP), company income tax ratio (CIT_GDP) and social contribution ratio (SC_GDP).

H4: There is a linear relationship between shadow economy ratio (SE_GDP), company income taxes ratio (CIT_GDP), direct taxes ratio (DT_GDP), indirect taxes ratio (IT_GDP), personal income taxes ratio (PIT_GDP) and value added taxes ratio (VAT_GDP).

The link between the abovementioned variables is analyzed by means of the following econometric models:

$$\text{Model 1: } SE_GDP_{it} = a_0 + a_1PIT_{it} + a_2CIT_{it} + \delta_i + \theta_t + \varepsilon_{it}$$

$$\text{Model 2: } SE_GDP_{it} = a_0 + a_1PIT_{it} + a_2CIT_{it} + a_3VAT_{it} + \delta_i + \theta_t + \varepsilon_{it}$$

$$\text{Model 3: } SE_GDP_{it} = a_0 + a_1PIT_GDP_{it} + a_2CIT_GDP_{it} + a_3SC_GDP_{it} + \delta_i + \theta_t + \varepsilon_{it}$$

$$\text{Model 4: } SE_GDP_{it} = a_0 + a_1PIT_GDP_{it} + a_2CIT_GDP_{it} + a_3DT_GDP_{it} + a_4IT_GDP_{it} + a_5VAT_GDP_{it} + \delta_i + \theta_t + \varepsilon_{it}$$

where:

- δ_i represents fixed effects intended to control for time-invariant taxation-specific factors;
- θ_t represents fixed effects intended to control for common shocks (e.g., global financial crisis);
- ε_{it} represents the error term.

In order to offset the omission of other variables that might impact the direct taxes ratio, indirect taxes ratio or taxes received by government ratio, the specific unobserved effect (δ_i) of a country should be considered. Due to the fact that common shocks influence the size of the shadow economy, an estimation with fixed effects of the parameters was also performed.

Results

Estimations of the relationship between personal income tax rates (PIT), company income tax rates (CIT), value added tax rates (VAT) and shadow economy ratio (SE_GDP) are presented in Table 5.

Table 5: Estimations of the relationship between personal income tax rates (PIT), company income tax rates (CIT), value added tax rates (VAT) and shadow economy ratio (SE_GDP) via econometric models

Indicators	Model 1		Model 2	
Constant	22.79751*** (17.81022)	18.14658*** (38.06156)	13.07311*** (18.08710)	19.05229*** (77.70333)
CIT	0.142933*** (5.993937)	0.001132 (0.133901)	0.211957*** (8.531157)	-0.001388 (-0.164844)
PIT	0.038618*** (3.167388)	0.015075*** (2.336802)	0.038230*** (2.843829)	0.015110*** (3.658654)
VAT	-0.389886*** (- 8.844951)	0.040781** (2.210651)	-	
Prob.>F	0.000	0.000	0.000	0.000
F-statistic	613.5888	4125.430	518.9110	4174.362
Cross-section effects	Fixed	Fixed	Fixed	Fixed
Time fixed effects	No	Yes	No	Yes
R ²	0.982143	0.998103	0.978229	0.998076
Observations	390	390	390	390

Note: The dependent variable is SE_GDP for country "i" in the "t" year. Robust t-statistics are shown in parentheses. *, **, *** indicate statistical significance at 10%, 5% and 1% levels. Prob.>F is the probability of the model not including fixed effects. For all estimated models, the hypothesis of multicollinearity is investigated using the variance inflation test (VIF). In all cases, the VIF values are lower than 3, thus indicating low risk of multicollinearity.

Model 1

In the first equation, the multiple regression model is significant ($R^2=0.9821$), meaning that 98.21% of the variation in the SE_GDP is explained by independent variables, while 1.79% is explained by variables outside the model. The F-statistic of 613.58 shows that predictors are significantly related to the dependent variable SE_GDP. The regression estimation indicates the existence of a positive relationship between SE_GDP and independent variables PIT and CIT and a negative relationship between SE_GDP and VAT. Namely, the coefficient 0.1429 indicates that an increase of 1% in CIT leads to an improvement of 14.29 percentage points in SE_GDP or an increase of 1,000 Euros in CIT leads to an increase of 142.9 Euros in the size of the shadow economy. At the same time, an increase of 1% in PIT leads to an improvement of 3.8% in the size of the shadow economy, while an increase of 1% in VAT leads to a decrease of 38.98 in the size of the shadow economy.

In the second equation, when taking into account fixed-time effects, the F-statistic value of 4,126.43 shows that predictors are significantly related to the dependent variable SE_GDP. Moreover, the multiple regression model is significant ($R^2=0.99$), meaning that 99% of the variation in the SE_GDP is explained by the independent variables, while 1% is explained by variables outside the model. Results show that an increase of 1,000 Euros in PIT and VAT generate an increase in the shadow economy ratio by 15 Euros and 41 Euros, respectively. The 0.133 robust t-statistic for CIT indicates statistical non-significance. Based on the results above, the null hypothesis is rejected and the alternative hypothesis is accepted, hence one can conclude that there is a positive significant impact on shadow economy.

Model 2

In the first equation, the results indicate that the multiple regression model is significant ($R^2=0.97$), meaning that 97% of the variation in the SE_GDP is explained by the independent variables, while 3% is explained by variables outside the model. The F-statistic value of 518.91 shows that predictors are significantly related to the dependent variable. The regression estimation reveals the existence of a strong positive relationship between SE_GDP and the independent variables CIT and PIT. Namely, the coefficient of 0.0382 indicates that an increase of 1% in the personal income tax ratio leads to an improvement of 3.82 percentage points in SE_GDP. Hence, a 1,000-unit rise in CIT will determine a 211 Euros rise in SE_GDP.

In the second equation, when taking into account fixed-time effects, the multiple regression model is significant ($R^2=0.99$), meaning that 99% of the variation in the SE_GDP is explained by independent variables, while 1% is explained by variables outside the model. Also, the F-statistic of 4,174.362 shows that predictors are significantly related to the dependent variable SE_GDP. Results indicate that an increase of 1,000 units in PIT determine an increase of 15 Euros in SE_GDP. The -0.164844 robust t-statistic for CIT indicates statistical non-significance.

Based on the results above, the null hypothesis is rejected and the alternative hypothesis is accepted. Therefore, one can state that there is a positive significant impact on shadow economy.

Estimates of the relationship between shadow economy ratio and fiscal pressure ratios are presented in Table 6.

Table 6: Estimations of the relationship between fiscal pressure ratios and shadow economy ratio via econometric models

Indicators	Model 3		Model 4	
Constant	27.22307*** (12.01729)	18.53142*** (27.58029)	20.32051*** (13.31543)	18.95299*** (41.41283)
PIT_GDP	-0.081746** (-2.024799)	0.025052** (2.129096)	0.006337 (0.155319)	0.024793** (2.136189)
CIT_GDP	0.270974*** (3.041211)	0.040854 (1.457825)	0.521763*** (4.746264)	0.060698* (1.777823)
SC_GDP	-0.578020*** (-3.822887)	0.037056 (0.815836)	-	-
DT_GDP	-	-	-0.191525*** (-3.171291)	-0.013809 (-0.791343)
IT_GDP	-	-	0.187702 (1.430022)	-0.105008*** (-2.765759)
VAT_GDP	-	-	-0.357286* (-1.660472)	0.204786** (3.321360)
Prob.>F	0.000	0.000	0.000	0.000
F-statistic	430.8747	3979.065	401.8513	3904.069
Cross-section effects	Fixed	Fixed	Fixed	Fixed
Time fixed effects	No	Yes	No	Yes
R ²	0.974761	0.998033	0.974675	0.998094
Observations	390		390	390

Note: The dependent variable is SE_GDP in both models for country "I" in the "t" year. Robust t-statistics are shown in parentheses. *, **, *** indicate statistical significance at 10%, 5% and 1% levels. Prob.>F is the probability of the model not including fixed effects. For all estimated models, the hypothesis of multicollinearity is investigated using the variance inflation test (VIF). In all cases, the VIF values are lower than 3, thus indicating low risk of multicollinearity.

Model 3

In the first equation, results show that the multiple regression model is significant ($R^2=0.97$), meaning that 97% of the variation in the SE_GDP is explained by the independent variables, while 3% is explained by variables outside the model. The F-statistic of 430.87 shows that predictors are significantly related to the dependent variable shadow economy. The regression estimation reveals a positive relationship between SE_GDP and the independent variables CIT_GDP, and a negative relationship between SE_GDP, PIT_GDP and SC_GDP. The t-statistic for PIT_GDP indicates a statistical significance at the 5% level. For CIT_GDP and VAT_GDP, the robust t-statistic of -2.02 and -3.82 indicates a statistical significance at the 1% level. In the second equation, when taking into account fixed-time effects, the multiple regression model is significant ($R^2=0.99$), meaning that 99% of the variation in the SE_GDP is explained by the independent variables, while 1% is explained by variables outside the model. Also, the F-statistic of 3,979.065 shows that predictors are significantly related to the dependent variable SE_GDP. The 2.129 robust t-statistic for PIT indicates statistical significance at the 5% level. The t-statistic for CIT_GDP and SC_GDP indicates statistical non-significance. Based on the results above, the null hypothesis is rejected and the alternative hypothesis is accepted. Hence, there is a positive significant impact on shadow economy.

Model 4

In the first equation, results show that the multiple regression model is significant ($R^2=0.97$), meaning that 97% of the variation in the shadow economy ratio is explained by the independent variables, while 3% is explained by variables outside the model. The F-statistic of 401.85 indicates that predictors are significantly related to the dependent variable. The regression estimation reveals that a positive relationship exists between SE_GDP and the independent variables PIT_GDP, CIT_GDP and IT_GDP and a negative relationship with DT_GDP. The 0.155 robust t-statistic for PIT and the 1.43 t-statistic for IT_GDP indicate statistical non-significance. Moreover, the 4.74 t-statistic for CIT_GDP and the -3.171 value for DT_GDP indicate statistical significance at the 1% level. For VAT_GDP, the -1.66 robust t-statistic indicates statistical significance at the 10% level.

In the second equation, when taking into account fixed-time effects, the multiple regression model is significant ($R^2=0.99$), meaning that 99% of the variation in SE_GDP is explained by the independent variables, while 1% is explained by variables outside the model. The F-statistic of 3,904.06 shows that predictors are significantly related to the dependent variable SE_GDP. The -0.79 robust t-statistic for DT_GDP indicate statistical non-significance. The 1.77 robust t-statistic for CIT_GDP shows statistical significance at the 10% level, the 1.77 robust t-statistic for CIT_GDP shows statistical significance at the 10% level, while the 2.13 t-statistic for PIT_GDP indicates statistical significance at the 5% level. In the same time, the -2.76 t-statistic for IT_GDP and the 3.32 t-statistic for VAT_GDP indicate significance at the 1% level.

Based on the results presented above, the null hypothesis is rejected and the alternative hypothesis is accepted. Hence, one can conclude that there is a positive significant impact on shadow economy within the analyzed country sample pool.

4. Conclusion

The present article analyzes the relationship between shadow economy and fiscal pressure ratios on a sample pool including 30 European countries (i.e., EU-28 members, Iceland, Norway) for the period 2004-2016.

In the first place, empirical results show the existence of a linear relationship between shadow economy, personal income tax rates, company income tax rates and value added tax rates. In such context, when these taxation rates increase, the size of the shadow economy may increase as well, therefore delaying tax authorities' efforts to clamp down on tax evasion and augment budgetary revenues.

Secondly, one result worth of notice is the significant positive relationship between shadow economy, personal income tax rates and the company income tax rates. Based on this result, one can assume that, when companies operating in these countries increase their profit and employee wages, the shadow economy level tends to increase due to the existence of the black labor market.

Thirdly, when investigating taxation level as a percentage of GDP, one observes that both personal income tax ratio and social contribution tax ratio have a negative influence on shadow economy. Moreover, the direct taxes ratio and value added ratio trigger a mitigation in the size of the shadow economy. Therefore, it can be concluded that European countries can reduce shadow economy and tax evasion levels by implementing a strong policy concerning the value added rates.

Last but not least, results indicate strong correlations between shadow economy ratio (dependent variable), personal income tax rates and company income tax rates (independent variables), meaning that shadow economy ratio increases in the same time as labor and company taxation. Analyzing the result from the investors' standpoint, it can be noticed that a rising fiscal pressure tends to diminish future investments and increase the size of the shadow economy. As for the company employees, an increase in fiscal pressure negatively influences purchasing power and it increases the price of goods and services sold on the market.

All in all, the current empirical investigation advances the following measures regarding the management of the fiscal pressure and shadow economy:

- optimizing budgetary revenues by enhancing tax levying, maintaining or decreasing taxation;
- efficiently assigning budgetary revenue with the purpose of creating new jobs and boosting investments; the latter would ultimately increase the collection of direct labor taxes and mitigate shadow economy;
- offering fiscal incentives to national and foreign investors; this measure generally increases the number of new jobs on the labor market and stimulates the introduction of new manufacturing technologies; the immediate effect is the mitigation of shadow economy and tax evasion levels.

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URBAN ECONOMY VS. RURAL ECONOMY. FINDINGS FOR ROMANIA

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Abstract: *The paper aims to make a comparative study between the urban and the rural economy. We started from defining and typifying the urban and rural environment, identifying the differences between them and the impact of these differences on economic development. I listed after that the main determinants of the urban and rural economy, but also the interdependencies between the two types of economy. The conclusions show considerable changes in the urban and rural economy in relation to the traditional perspective, in the sense that the rural environment tends to be more urban, especially in terms of quality of life, and rural-urban interdependencies are becoming stronger.*

Keywords: *urban economy; rural economy.*

JEL Classification: *O13; O14; O18.*

1. Conceptual Delimitations: Definitions, Classifications, Typologies

Cities are nodal points in any country, they focus population, are cultural, educational centers, have the characteristics of a built environment, providing basic facilities for human activity.

In 1930, the Great Romania period, of the 18 million inhabitants, 80% were part of the urban area and only 20% were part of the rural area. In 1966 urban-rural proportions were reversed, and after 2005 urbanization began to accelerate in the sense that the number of people moving from rural to urban areas increased by 120,000 compared to those who moved from city to country, and between 1996 and 2008, this difference was 313,000.

(<https://www.academia.edu/5258054/Urbanizarea>)

Urbanization has accompanied the industrialization process. In developing countries, this occurred in the second half of the twentieth century as a result of rural-urban migration, against the backdrop of rural push factors (modernization of agriculture and rural poverty) and urban pull (industrialization and urbanization); are studies that attribute little importance to demographic factors in urban development, which opens new perspectives for the phenomenon of urbanization without economic growth, (Jedwab, Christiansen, Gindelski, M., 2017, pp. 6-16).

In Romania, however, the forced urbanization of the communist period had a positive short-term impact, but in time it turned out to be a mistake because many regions in the country provoked industrial specialization without other alternatives such as happened in the Jiu Valley, Copsa Mica or Baia Mare, with its collapse, a large part of the population remained unemployed and unable to reintegrate into the labor market in other areas domains of activity and on the other hand there were quite significant damages to the environment and the depopulation of some villages.

The term "urban" refers to the densely populated region or area that possesses the characteristics of a man-made environment. The inhabitants of this area are mainly

engaged in trade and services. The city offers more advantageous employment opportunities due to large-scale industrialization.

We define the term "rural" as a region located on the outskirts of the city, they refer to a small settlement that is outside the borders of a city, a commercial or industrial area with very few constructions and small population size. These areas, including villages of all size, unlike urban areas, have been established in places where natural vegetation and open spaces exist.

The main source of income for rural residents is agriculture and animal husbandry, and in some areas crafts and tourism.

According to the Nomenclature of Territorial Units for Statistics on NUTS Codes of Romania, at rural level, rural areas have territorial level level 5 (NUTS 5), where the density of the community does not exceed 150 inhabitants per km². This level classification established by the NUTS Regulation by the European Statistical Office (EUROSTAT) and approved by the European Commission and the European Parliament was made for the calculation of population typologies of territories. Through the UN joint project "Strengthening National Strategic Systems", the requirements on demographic thresholds at NUTS levels have been established. In Romania, according to the number of inhabitants per km², 4 NUTS 1 macroregions are comprised of two NUTS 2 regions with NUTS 3 regions subdivided into counties and the capital, (table no. 1).

Table 1. Demographic Classification of development regions in Romania

LEVEL	Subdivision	Number of subdivision	The minimum population	The maximum population
NUTS 1	Macroregions	4	3 mil.	7 mil.
NUTS 2	Regions	8	800 000	3 mil.
NUTS 3	Counties + București	42	150 000	800 000

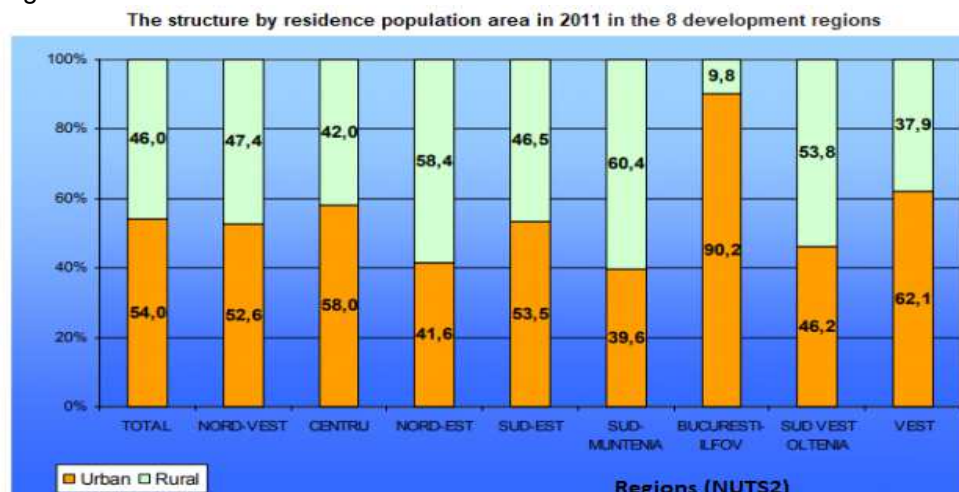
Source: <https://ec.europa.eu/eurostat/documents/345175/7451602/nuts-map-RO.pdf>

This hierarchical system aims to create a unitary territorial distribution structure at EU level to facilitate the collection and development of regional statistics for economic analyzes as well as the development of regional development policy in the context of EU cohesion policy.

Since 1988, the European Union has been publishing a three-yearly report on the socio-economic regional development of the Member States at NUTS 1, NUTS 2 and NUTS 3 levels, as well as for local administrative units LAU 1 for NUTS 4, and LAU 2 for NUTS 5. Depending on the results of this report, the Structural Funds are directed to the poorer regions than the EU average.

On the basis of the number and density of the population, the urban environment outweighs the rural environment. Thus, as of 2008, according to UN statistics, half of the world's population lives in cities and in Europe this percentage has been recorded since 1950. Looking ahead to 2050, it is estimated that 68.7% of the world's population will live in cities, in Europe the estimated percentage being 84.2% (United Nations, 2009).

Graph 1. The structure by residence population area in 2011 in the 8 development regions of Romania



Source: http://www.recensamantromania.ro/wp-content/uploads/2013/07/REZULTATE-DEFINITIVE-RPL_2011.pdf

On the spatial criterion, however, the rural population is outpacing the city, with the OECD establishing that 91% of EU territory is represented by rural areas. This means that the urban population density is much higher than the rural population (EPESP, 2000).

Three types of regions are currently being set up at EU level: predominantly urban, predominantly rural and intermediate.

On the Eurostat website the term “intermediate region” is defined as a component part of the rural-urban typology with NUTS development level 3, where between 50% and 80% of the population is resident in the urban clusters, unlike the “predominantly urban regions”, where more than 80% of the population are living in urban areas.

2. Differences between Urban and Rural Areas

We can analyze the fundamental differences between rural and urban areas based on several criteria.

Table 2. Differences between urban and rural

No.	Criterion	Urban environment	Rural environment
1.	Demographics	Numerous populations, low birth rates, low mortality, low urban-rural mobility	Population and low density, higher birth rates, higher mortality, high rural-urban mobility
2.	Labor market	Numerous and varied jobs, business opportunities	Less and predominantly jobs in agriculture
3.	Economic life	Industry, services	Agriculture
4.	Administrative organization	Districts, metropolitan areas	Little villages, villages, communes

No.	Criterion	Urban environment	Rural environment
5.	The natural environment	Poorly represented	Omnipresent
6.	Level of Development	Planned and systematic development. As a rule, high living standards, but with poor enclaves	Rural settlements are less developed but more homogeneous in terms of living standards of the population
7.	Social mobility	Residents frequently change their residence or workplace in search of new opportunities	Residents are more stable
8.	Life quality	Better, transport infrastructure, water, sewage, electricity, gas, school infrastructure, sanitary, cultural infrastructure	Worse, lack of infrastructure
9.	Complexity of relationships	Extensive relationships, complicated, often tense, relationships, generated by crowded dwelling in blocks	Solid interpersonal relationships, simplicity, relaxation

Source: Own work

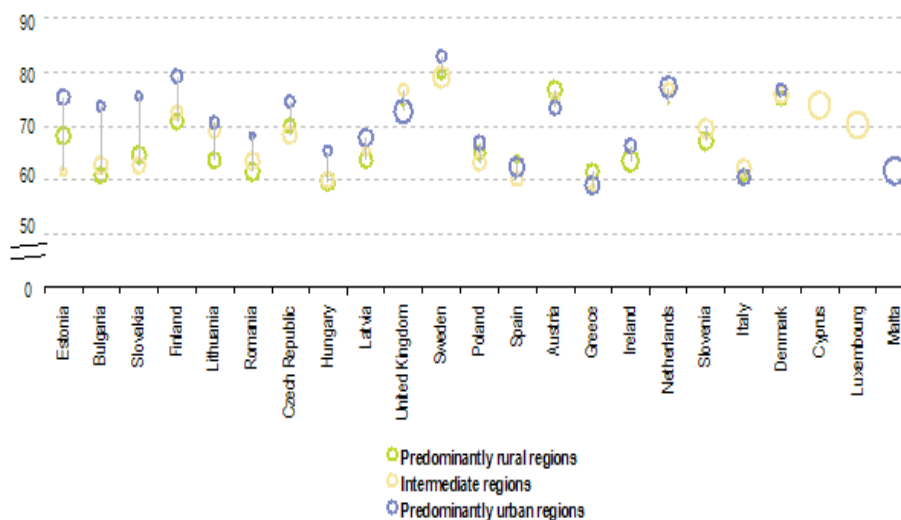
The above table highlights major differences between rural and urban areas in terms of all the criteria taken into account, allowing for a definition of the two environments. Thus, we can define the urban environment as large localities and population, where economic life is well developed, where industry and services predominate, offering numerous and varied jobs and, implicitly, high incomes. All this provides residents with a better living standard, based on multiple opportunities and a complex infrastructure, but involves superficial and often strained human relationships.

In contrast, the rural environment is defined by smaller localities as area and population associated with agriculture, lack of infrastructure and economic development opportunities with low living standards, having the benefit of the natural environment and the inertial relations consistent.

The differences between urban and rural areas are not equally valid, but in all geographic areas there are developed countries like Germany, where these differences are not so obvious, especially if we are considering the quality of life criterion.

It can be argued that the first five criteria: demography, the labor market, economic life, administrative organization and the natural environment are still criteria for differentiation between urban and rural areas in most geographic regions. For example, with regard to the labor market, Eurostat data are relevant for differences in employment rates of people aged between 20 and 64 year-old in urban and rural areas in the European Union.

It can be seen that in most EU countries the employment rate is higher in predominantly urban areas, except in the southern European countries (Spain, Greece, Italy), but also in the Netherlands, Denmark and Poland where agriculture is an important economic branch. In Romania, there are obvious differences between urban areas on the one hand and rural or intermediate ones on employment rates. This may also be due to the lower quality of rural human resources, often private to evacuation, health, cultural or recreational services, relative to the urban environment.



(1) Belgium, Germany, France and Portugal, not available; Czech Republic, 2010; the size of the bubble reflects the share in total population of each type of region.

Source: Eurostat (online data codes: urt_life3empt and urt_pjanagr3)

Graph 2. Population rates between 20-64 years old in urban and rural areas

Source: EUROSTAT statistis

The last four criteria: the level of development, social mobility, quality of life, and the complexity of inter-human relationships are no longer relevant, with proximity or distortion to the traditional situation. Thus, there are common, generally large, more developed than some small towns; social mobility also has a trend opposite to the traditional one, namely urban-rural migration, especially to the peri-urban areas, in search of a quieter, healthier life; the quality of life has improved considerably in Western Europe, benefiting from the same infrastructure facilities (transport, sanitation, energy, information technology, etc.) such as urban areas: inter-human relations, on the other hand, have deteriorated much in the environment rural areas under the impact of technology and changes in the modern world.

In Romania, the differences persist between rural and urban under almost all aspects. In addition, the proximity between urban and rural areas is less achieved by urban proximity and urban deterioration (in the case of small, deindustrialised towns or urban areas declared in spite of precarious economic and social conditions). (Gidiu and Toader, 2011, p.1) are of the opinion that "in Romania there are substantial differences between rural and urban areas. Differences in consumption patterns between rural and urban people. In rural areas, the population is spending less in all goods and services that reduce their standard of living".

The study of some agglomeration theories to identify why the city is more attractive includes the following:

- In cities, the circulation of products is much more efficient, with the urban environment

- Offering a much larger portfolio of suppliers, this will favor mobility by significantly reducing the route with the movement of goods and, implicitly, lost time but also transport costs
- Cities offer the advantage of interaction and knowledge transfer of collaborative business representatives
- Cities offer the opportunity to develop innovative ideas or knowledge in the economic field through the contribution of the people engaged in this segment of creativity, which contributes to the formation of specialized human capital
- In cities, human capital is more widespread and more diversified. (Glaeser, 2009)

The new knowledge-based economy, with advanced technology focused on fast electronic communication and unlimited access to information, has managed to narrow the gap between urban economies and rural economies, but there are still very large digital differences.

In Romania, there is currently 27% of the employed population in agriculture, the rural population occupying 45%, (National Institute of Statistics, Vol. 2, Population 2011 on localities), from which we conclude a lag behind in terms of the development of agriculture, but also the modernization of life in villages. American sociologist Daniel Bell has called into question the fate of agriculture, meaning that the post-industrial society or knowledge outweighs the industrial one but does not overturn and rely on it, and the two sectors of industrial production and knowledge will continue to rely on agriculture, underlining the fact that the agricultural branch remains the primary source of human survival, and the other stages only overlap with it, such as "the leaves of a goat". Thus, only work and activity change through the emergence of industrial social structures, and then their restructuring based on information and communication technologies. Therefore, agriculture will remain a basic element in the survival of humans, and the other phases will only add new stages in its evolution.

Consumers prefer areas where they have the opportunity to find a better paid job, they benefit from diversified services that improve their personal comfort, and firms prefer areas where salary spending is lower, but urban areas have more workforce expanded and varied, and transport costs are much lower. The facilities offered to the consumer by the urban environment are:

- education,
- access to health services,
- meeting the need for culture,
- entertainment,
- good communication skills etc

The lack of facilities must be identified by a SWOT analysis of the urban system, thus forming strategies to compensate for their lack and/or to make good use of the chances. It is also recommended to know and evaluate threats that could lead to certain dysfunctions and focus on the strengths of the areas. A diagnostic analysis of the urban and rural system for social infrastructure, community life, the economy of the productive sector and services, territorial marketing, cultural heritage, polluted industrial lands, quality of public services, citizen safety, sanitation, industrial wastewater treatment, transport, local roads, bridges, passages, parks and gardens

etc., and depending on the results of the qualitative indicators, priorities will be set for the development of the urban or rural system.

Community development should focus on attracting financial resources, but also on building sustainable public-private partnerships between local government, civil society, other organizations and / or European organizations to develop local development projects by accessing European funds through various national funding programs (eg The National Rural Development Program 2014-2020) so that a traditional approach will no longer meet the current competitiveness requirements at European level.

3. Determinants of the Urban and Rural Economy

3.1. For Cities:

Geographical factors: Geographical Features: Relief, Climate, Water, Air, Water and / or Land Transport Possibilities (The first railways have determined the path dependence on the location of the cities, after which this effect is no longer felt; high speed and the interconnection between these trains or between different means of transport increases labor mobility and specialization). The position of a city over other cities.

Economic factors: entrepreneurship, resources, market, economic equilibrium or specialization, transport costs for the population and for companies; "Traffic congestion leads to higher costs, lower productivity and accidents; however, public transport or other alternatives to owning a vehicle may partly offset this. Distance or proximity to transport centers is particularly important for business development and tourism.

Job creation is usually higher in urban areas, largely due to the population density, the inherent markets they produce and a larger and more diverse workforce. In addition, urban areas with large populations become more attractive to people and businesses by creating economies of scale (agglomeration savings). "

Demographic factors: Population (urban concentration has both benefits and associated costs), labour force

Policy factors: Urban development strategies (national, local), land-use policies

Cultural factors: schools, other cultural institutions

- Historically-themed parks such as the Bulgarian model, for which partnerships have been made between teachers, historians, archeology specialists, architecture, art, and restorations. Such a park could harness a space of a decommissioned industrial area. While this project would alter the tourist profile, (<https://www.novinite.com/articles/194570/The+Biggest+History+Park+in+the+World+Opens+in+Bulgaria%2C+Near+Varna+in+the+Spring+%28Photos%29>)
- Community Centers that function as logistics centers in which various events will be organized with the objective to develop and revitalize the city such as: brainstorming meetings with citizens of the city regardless of social environment, ethnicity or age, representatives of local public authorities, non-governmental organizations and / or the business community; workshops; exhibitions
- workshops for the development of young people and children by expanding talents, enhancing aesthetic and artistic sense,

- international creative industry festivals (eg SCIEFEST - Science and Creative Industries Festival) where workshops will be organized in collaboration with universities or researchers by presenting inventions, innovative projects or applications
- high tech festivals (eg Tech Expo Bucharest) devoted to students, entrepreneurs or professionals to encourage innovation and adoption of new technologies
- workshops to support the research community at national level (eg enformation) through partnerships with libraries, research institutes, universities and private and national non-national companies
- internship programs for students to provide them with a job and put into practice the learned theory (<https://www.e-nformation.ro/cariere>).

Environmental factors: parks, air quality, water quality (investments in water infrastructure, together with sewerage systems increase the quality of urban life and increase the life expectancy of the inhabitants (Kesztenbaum, Rosenthal, 2018, pp 174-186). Services: Health, trade, living spaces

3.2. For Rural Localities:

Geographical factors: Relief, climate, water, proximity of the city

Economic factors: In Romania, the interest in organic products and the domestic bio-products market is very poor. Although a certain demand exists, retailers and retailers are more likely to turn to product imports.

According to EUROSTAT statistics, about 300,000 ha of the country's agricultural area was grown without chemical fertilizers or far away from pollution, meaning only 2% of the country's agricultural area is occupied by organic crops. Unlike Western countries, Romania has a much higher potential for organic farming, because the land is much cleaner, since it is not affected by intensive farming with technologies that call for the full potential of the earth, and yet, despite this fact, Romania places the middle of the ranking of organically grown areas.

Although the urban population declined by a much higher percentage than in rural areas due to massive emigration, a relatively equal ratio between urban and rural was maintained due to the transformation of rural areas into cities.

Demographic factors: Population, labour force

From the collection and processing of the data collected in the October 2011 on the migrant segment of the population abroad, it is revealed that the percentage of persons left for at least one year abroad is higher in the urban environment (54%) compared with 46.0%, representing migrants from rural areas. To other countries, young people in the work category are heading in particular: 46.2% young people aged 20-34 and 24.8% young people aged 35-44.

On January 1, 2016, urban areas, in the 320 municipalities and towns, lived 12,546,212 people, and in the rural area 9,695,506. The share of urban population was 56.41%, down slightly from January 1, 2015(56.44%) (http://www.insse.ro/cms/sites/default/files/field/publicatii/populatia_romaniei_pe_lo_calitati_la_1ianuarie2016_0.pdf.)

Although the phenomenon of migration is higher among the urban population than the rural population, paradoxically the percentage of the rural population is smaller than the urban population, the explanation being the urbanization process, a concept defined as:

- "Intensive development process of existing and rising urban cities and urban populations"" (Erdeli et al 1999, p. 339)
- "the faster transformation of a rural area or agglomeration by increasing the urban population" "(Giblin-Delvallet, 1995, p. 1559),
- "The process by which the development of urban and rural localities is achieved as a place of concentration and of integrated industrial-agricultural activities, as well as the development and extension of the urban way of life" (Cucu, 1981, p. 273),
- "global social process through which a transformation of social and professional structures, a restructuring of the forms of rural existence and the old urban forms by new models "(Voinea, 1993, pp. 658-659).

Policy factors:

Improving The situation of young people in the NEETs category – The objective of the project is the inclusion in the labour market of young people from rural areas and young people aged 16 to 24 years, registered in the records Employment Agencies residing in certain eligible development regions that do not work or do not follow a vocational training course.

Cultural Factors: Traditions, customs, Pilgrimage areas, Manufacturing Services

4. Rural-Urban Interdependencies

Europeans have adopted urban lifestyles and use urban facilities such as cultural, educational or medical services. Although cities are the engines of the European economy and the generators of Europe's welfare, they are heavily dependent on the resources of the outer regions in order to cope with energy, water, food and waste management and polluting emissions.

(<https://www.eea.europa.eu/ro/themes/urban/intro>)

The demarcation Line between rural and urban is increasingly dimmed. ("the urban-rural continuum"). An growing segment of the population resident in the urban area, namely among the categories of persons who have the financial potential to invest in buildings located in the periurban areas, but also of persons aged over 65 years who want a quiet life away from the urban hustle, reorient to a new note of his own comfort: a tranquil atmosphere beyond the vibrant and alert city life. This category of people who will migrate in increasing numbers to the rural areas in the proximity of cities, will try to retain their comfort from the urban environment by developing the infrastructure of the area where they will move to bring it as much as possible to the standards they are accustomed to live in the city or across borders, thus participating in the urbanization of villages.

The Advantage that urban migrants could bring to the development of the rural area would be to open them to start-ups in non-agricultural activities through non-reimbursible financing programmes in areas such as: production, creative industries, IT programming, services, trade, and other activities, which could attract tourists, various investors to the area, or other actors of business environments. At the same time, the rural population tends to migrate to cities as they offer them: better paid jobs, better living conditions, specialised health services, education and culture at a higher level, as well as other facilities. Another motivation for migrating to the urban area would be the need for a certain freedom that they can only have in the city, unlike the village, where there is a certain social control on the part of the family as well as the small traditional community of the village, which could create a perception

of the individual's bias in the manifestation of his creativity, and the individuality and originality of his own person, but also of other qualities that the subjective subcognition of this patrilial atmosphere might be able to plummet. Thus those leaving the countryside to cities, will adapt to urban life, and those who depart from towns to rural areas close to the towns from which they come to escape the city's noise, congestion, pollution, to be closer to nature and to benefit more space will contribute to the urbanization of the village.

- Rural-Urban Continuum
- Metropolitan Areas
- Urban Supply of cities with agricultural products and rural villages with industrial products (disrupted by massive international trade)
- Workforce Flows
- Rural-Urban Clusters

5. Conclusions

The Configuration of rural and urban development has changed over time, influencing also the rural and city economy, which have developed, paradoxiously, together and yet different. Together, given the dependence of one another, different from the perspective of the activity object.

Considering Rural and urban areas as interconnected and interdependent, the European Union seeks to balance the level of their development by allocating funds for rural development. It is also the case for the European Regional Development Fund (ERDF), established in 1975 with the aim of mitigating differences between different regions and strengthening economic and social cohesion in the EU. However, There is an important challenge for the EU to match the objective of economic competitiveness and liberalization, with economic and social cohesion (Committee on Spatial Development, 1999)

The Chances of success in this regard lie in diversifying the rural economy, increasing capital flows and developing entrepreneurship in rural areas, particularly in the field of tourism and organic farming.

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SECTION: *FINANCE, BANKING, ACCOUNTING AND AUDIT*

THE IMPACT OF HR POLICY ON CORPORATE PERFORMANCE

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Abstract: *This research contributes to the ongoing discussion on the relationship between corporate performance and human resource policies implemented by companies. It provides empirical evidence for Romanian companies that invest in the development of their employees, which generates high employment costs. The panel data analysed is consisting of 203 companies operating in the Western region of Romania, referring to financial data over the period 2010-2016. The analysis is based on comparative regression models (OLS, fixed effects, random effects). The results indicate a positive and immediate effect of employment costs towards economic performance, while the financial performance could be impacted over the long-term. Providing continuous development of employees would improve the corporate performance, most probably because it increases the effectiveness of human resources and production process. For the negative relationship between ROE and employment costs, we conclude that the financial performance is affected only over the short-term, as net profits are reduced due to high employment costs. However, the development of employees could increase the future returns ensuring sustainable growth through a steady increase in future profits.*

Keywords: *human resource development; corporate performance; Romania.*

JEL Classification: L25; O15.

1. Introduction

The literature on human resource development may be classified into three main categories (Kramar, 2014). The first one is related to the creation of sustainable competitive advantages through human resources management policies. The second type is related to sustainable practices through which the human resource management addresses human, social and environmental-friendly outcomes. Finally, the third category refers to the relationship between human resource management and various organisational outcomes (related to performance, effectiveness, social and environmental factors), tending to minimise the negative effects on the community, society, and environment.

This research contributes to the ongoing discussion on the relationship between the performance of organisations and their human resource policies, by providing evidence for Romanian companies. The human resource management is currently viewed as sustainability practice, and its analysis can be developed over multiple

levels: social or economic dimensions, time perspectives (short-term or long-term), effects on individuals or organisation etc. This paper will examine the immediate influence of human resource costs on economic and financial performance.

The following section of this paper presents a brief description of the European funded Programme on Human Resources Development, along with some major aspects related to the impact of human resource development on the performance of organisations, as they were identified in the literature. The third section will describe the data and methodology employed to analyse the impact of human resource costs on corporate performance, whilst the results will be commented in section four. The fifth section concludes.

2. Literature Review

In Romania, the largest human resources development program supported by the European Union is the Sectoral Operational Program Human Resources Development (SOP HRD), financed by the European Social Fund in Romania. The name of the program changed into the Operational Program "Human Capital" (POCU), setting up investment priorities, specific objectives and national actions in the field of human resources. In fact, POCU continues the investments made through the European Social Fund over the period 2007-2013. Launched 50 years after the foundation of the European Social Fund, which is the oldest of all European structural funds, SOP HRD provided more than 4 billion euros in 2007-2013, offering more opportunities and higher efficiency for the Romanian labor force by responding to a changing labor market, improving the trainings offered, the ability to adapt and the latest professional skills necessary.

Although human resource management became part of the business strategy, official studies emphasised that companies tend to hire employees based on their skills and capabilities, which are required for the open position (OECD, 2013). This way, the organisations do not have to provide training as their employees already have the required qualifications.

According to the Eurostat statistics, over the period 2007-2013, approximately 10% of the EU population in age bracket 25-64 benefit of training or educational courses. The highest rate was registered in Northern countries such as Norway and Iceland, where 19% and 26% of the population respectively attended such courses, confirming an innovative character for such economies, concerned by the human capital. Over the period 2014-2020, the European Union devotes even more resources on the adaptability of the labour force, as the European Social Fund has committed a little more than 83 billions of Euros.

Studies on the quality of life of beneficiaries of human resource development programs can be very useful in the implementation of European funded projects, by assessing the impact of their investment in the life of beneficiaries and the real needs of beneficiaries, for maximised effectiveness. The quality of life is defined as the perception of individuals on the social conditions in the context of a system of cultural values in which they live, depending on their own needs, standards and aspirations (World Health Organization, 1998). Therefore, through the quality of life offered to beneficiaries of projects in the development of human resources, we may understand the physical, psychological, economic, social and welfare aspects of participation in these projects, as well as their ability to gather knowledge and experience accumulated over the implementation of these projects to achieve an

aspiring life standard, and an objective that involves both personal development and professional life (Tecau, 2015). Essentially, human resource development contributes to an increase in financial performance and employees' satisfaction as it enables their commitment towards the organisation they work for, also increasing their well-being (Sotome and Takahashi, 2014).

Among the most relevant papers published in the field of projects for human resource development sustained by EU funding, we mention the annual reports on the implementation of SOP HRD and a few evaluation reports elaborated within the projects implementation process. Only a few articles related to the impact of human resource development programs may be identified in the literature. For example, Iova (2009) analysed the effective implementation of SOP HRD in Romania addressing the issue of efficient use of Structural and Cohesion Funds, with a cost-benefit analysis related to positive results for all social levels. In terms of reaching the potential of EU member states, the main challenges for Romania were related to improving employees' performance, balance economic competitiveness with social welfare, optimize organisational performance based on the technological progress, and solve the aging population problem and economic burden of the social security system. SOP HRD may help in mitigating the challenges previously mentioned by promoting equal employment opportunities, offering training and managerial qualifications, and raising employees' awareness of their continuous development and vocational training.

The actual impact of the projects financed by the European Social Fund on the audience targeted was observed by Chițu (2012) through documents indicating marketing research carried highlighting the importance of receiving feedback from the project beneficiaries and information on actions to be taken to improve the satisfaction of beneficiaries of EU-funded human resources projects. Another study for this purpose led to the identification of the needs of the personnel within the organizations and the labor market trends in terms of the qualifications required in the central region (Ciuhureanu and Gorski, 2012).

An obvious impact of the continuous development of the skills and competencies of the employees is to increase the production capacity and corporate competitiveness. As a consequence, regardless of the fact that some economies may have an open market if their competitive advantages do not address the development of human resource, the performance management of the companies operating in these economies will be greatly affected (Adhikari, 2010). Nowadays, human resource development represents one of the main parts in the strategic plan for companies focusing on sustainable performance. From the sustainability point of view, organisations should have goals related to more than growth, development and efficient allocation of resources. They should provide a friendly work environment, adapted for the young generation, promoting gender equality, and proactive and productive work from employees (Chams and Garcia-Blandon, 2019).

The first theories on human resource considered that training for employees should be provided mostly in organisations focused on innovation (Dostie, 2017). However, the current business models changed their view and realised the importance of human resource development regardless of their economic activities. Consequently, the latest trends emphasise the fact that soft skills are as important as the technical ones, especially over the long run. In reality, the management of human resource should be related to the overall strategy of the organisation, based on its long-term needs and productivity (Lastra, 2014; Esteban-Lloret et al, 2016).

In terms of profitability, the management of human resource should focus on cost reduction while offering corporate performance over the long-term. This means that human resource practices should rely on sustainability and this may be achieved only through constant development of employees and their well-being within the firm. Therefore, there is an ongoing discussion on the topic related to the relationship between the performance of organisations and their human resource policies.

3. Data and Methodology

3.1. Data

In order to test to which extent the cost of human resources influences corporate performance, an econometric analysis of panel data will be conducted. The panel is consisting of financial data for 203 companies operating in the Western region of Romania, over the period 2010-2016. The data used was collected from the annual financial statements (profit and loss account, balance sheet). The indicators used in the econometric models were computed based on the financial data available and will be used in the analysis of staff cost efficiency.

The performance indicators will be treated as dependent variables. They refer to return on assets ($ROA = \text{Profit before tax} / \text{Total assets}$) and return on equity ($ROE = \text{Net income} / \text{Shareholder funds}$). A list of nine independent variables will be considered, and then reduced to those with statistically significant impact on each performance indicator. The list is consisting of average cost per employee: $emplcost = \text{Log}(\text{Total cost of employees} / \text{Number of employees})$;

short-term debt ratio: $shtdr = \text{Current liabilities} / \text{Total Assets}$;

long-term debt ratio: $lgtdr = \text{Non current liabilities} / \text{Total Assets}$;

size: $size = \text{log}(\text{Turnover})$;

current ratio: $cr = \text{Current assets} / \text{Current liabilities}$;

liquidity ratio: $lr = (\text{Current assets} - \text{Stocks}) / \text{Current liabilities}$;

solvency ratio: $sr1 = (\text{Shareholders funds} / \text{Total assets}) * 100$;

$sr2 = [\text{Shareholders funds} / (\text{Non current liabilities} + \text{Current liabilities})] * 100$;

gearing ratio: $gr = ((\text{Non current liabilities} + \text{Loans}) / \text{Shareholders funds}) * 100$.

3.2. Methodology

The first stage of the analysis will consider the linear regression model known as ordinary least squares (OLS). The model is presented in equation (1):

$$y = \alpha + \beta_1 x_{1n,t} + \beta_2 x_{2n,t} + \beta_3 x_{3n,t} + \beta_4 x_{4n,t} + \beta_5 x_{5n,t} + \beta_6 x_{6n,t} + \beta_7 x_{7n,t} + \beta_8 x_{8n,t} + \beta_9 x_{9n,t} + \varepsilon_{n,t} \quad (1)$$

Our dataset is consisting of 203 cross-sections ($n = 1..203$, representing the number of companies) for T consecutive periods ($t = 1..7$ years, according to the period analysed 2010-2016). The variable "y" represents the dependent variables, i.e. return on assets and return on equity. The variables denoted "x" are the independent variables; they are used to describe the variations in the performance indicators: x_1 represents staff costs, x_2 is the short-term debt ratio and x_3 is the medium- and long-term debt ratio, x_4 represents the size, x_5 is the current ratio, x_6 is the liquidity ratio, x_7 and x_8 are the solvency ratios, and x_9 is the gearing ratio. More specifically, the general regression model of the most complex model can be exemplified in the following form:

$$\text{Performance indicator} = \alpha + \beta_1 emplcost_{n,t} + \beta_2 shtdr_{n,t} + \beta_3 lgtdr_{n,t} + \beta_4 size_{n,t} + \beta_5 cr_{n,t} + \beta_6 lr_{n,t} + \beta_7 sr1_{n,t} + \beta_8 sr2_{n,t} + \beta_9 gr_{n,t} + \varepsilon_{n,t} \quad (2),$$

where α represents the constant of the model, $\beta_1.. \beta_9$ are the regression coefficients to be determined, and $\varepsilon_{n,t}$ represents the residual variable.

The next step is to apply the stepwise regression in order to identify the independent variables that have the highest statistical significance in determining the variance in the performance indicators. Based on the indicators emphasised as statistically significant in determining every performance indicator, a model with fixed (FE) and random (RE) effects will be tested and based on Hausman test we will identify whether or not the characteristics of the companies are important when determining the performance of Romanian companies. For data analysis, the statistical software package STATA was employed.

3.3. Results Robustness

In order to test the results robustness and to emphasise whether or not the human resource development has a high impact on corporate performance, a sub-sample will consider only companies that provided training and development courses for their employees. According to the latest data published by the National Institute of Statistics, the number of companies that offered continuous professional training increased by 20% between 2010-2015. However, over the last decades, the largest number of training providers was in 2005, when about 40% of the companies operating in the national economy were investing in employees. The employees participation rate tripled from 1999 to 2015 (from 7% to 21%).

Based on the official statistics available on the website of the National Institute of Statistics, the average cost of training of 1,705 lei per employee (the ratio between the cost of continuous professional training for all activities in the national economy, 1,246,270,836 lei, and the number of participants in training courses: 730,876 persons). This is the most recent data available, reported for 2015. Taking into account that the financial data taken does not provide details on the division of staff costs, we will consider the average cost per employee as the threshold to select from the whole sample the companies that, most likely, have incurred training costs for their employees. Considering that about 25% of the companies in Romania offered training opportunities for employees (according to the official statistics) we establish the sub-sample as the last quartile of the entire sample, based on staff costs: 47 companies with an average cost per employee exceeding 45,000 lei.

In order to emphasise the relevance of human resource development (observed through higher staff costs) on the performance of companies operating in Romania, we will test the same regression models (OLS, stepwise, random and fixed effects) on the sub-sample, observing the differences between the results.

4. Results

The comparative regression results for the models considering ROA as dependent variable can be observed in Table 1. The OLS model indicates that the average cost per employee and long term debt have a negative influence on the economic performance of the company. However, current debt has a direct influence on ROA, along with the solvency ratio evaluated based on total assets. The results of the stepwise model are consistent with the OLS model. In addition, liquidity ratio and size appear to have a direct influence on ROA. Considering the models with fixed and random effects, the cost per employee sustains the negative influence on economic performance. However, the debt changes its influence on ROA depending

on its term: current debt indicates a negative influence on ROA while long-term debt has a positive influence on performance. Size and solvency maintain their direct influence on ROA. Based on the Hausman test, the individual characteristics of the companies may influence the results and therefore the model with fixed effects is more appropriate for this database. Although the R-squared is not very high, this model may describe between 10% and 26% of the variance in ROA, depending on the regression model tested. The model is also confirmed by the F statistic, which is statistically significant in all the models.

Table 1: Results of regression models – dependent variable ROA

	OLS		Stepwise OLS		FE		RE	
	Coef.	T	Coef.	t	Coef.	t	Coef.	Z
emplcost	-3.62**	-1.98	-3.467**	-1.98	6.675***	-2.55	-5.24***	-2.67
shtdr	6.445**	2.33	5.247**	2.39	9.962***	-3.88	-4.275**	-2.09
lgtdr	-13***	-3.33	-13.4***	-3.32	7.199	1.4	2.743	0.61
size	1.128	1.59	1.196*	1.72	9.319***	7.48	6.71***	7.98
cr	0.401	0.56						
lr	0.888	1.16	1.197***	2.92	-0.083	-0.97	0.072	0.87
sr1	0.362**	2.14	0.186***	5.84	0.197***	7.69	0.183***	9.59
sr2	-0.082	-1.11						
gr	0.000	0.10						
_cons	3.900	0.45	5.103	0.62	-13.476	-1.12	-9.138	-1.03
R-sq.	0.097		0.092		0.23		0.26	
F / Wald test	7.34***		10.79***		54.4***		351.22***	
Hausman (chi sq.)					68.32***			

***, **, * - statistically significant at 1%, 5%, and 10%, respectively

The regression results for the models considering ROE as dependent variable are presented in Table 2. The regression model with all independent variables indicates that the only variable statistically significant is the average cost per employee. Compared to the ROA model, the regression coefficient for “emplcost” is a lot higher, suggesting that the cost of employment has a lot more influence on financial performance than on economic performance. Essentially, the higher the cost with employees, the least effective the management will be, as the shareholders’ returns will decrease. The results of the stepwise model confirm the relationship between employment cost and ROE reflected by the OLS model. In addition, liquidity ratio has a direct impact on ROE, and gearing ratio indirectly influences ROE. Considering the models with fixed and random effects, the cost per employee maintains its highly negative impact on financial performance. Based on Hausman test, the fixed effects model is more appropriate as the companies characteristics may influence the results. In addition, short-term debt has a large negative influence on ROE (according to the high coefficient values), along with the gearing ratio, which restrains the financial performance along with higher debt. The R-squared is limited: the model

may describe up to 5% of the variance in ROA, mainly based on employment costs. Although the R-squared values are low, the model was confirmed by the F statistic.

Table 2: Results of regression models – dependent variable ROE

	OLS		Stepwise OLS		FE		RE	
	Coef.	T	Coef.	t	Coef.	t	Coef.	z
emplcost	-50.9***	-4.17	-50.96***	-4.49	-69.5***	-5.83	-43.31***	-4.95
shtdr	17.888	0.97	22.047*	1.91	-40.86***	-3.61	-4.819	-0.58
lgtdr	-39.034	-1.44	-40.775	-1.53	22.303	0.95	-1.785	-0.09
size	2.017	0.42						
cr	-1.124	-0.24						
lr	7.472	1.48	6.574**	2.48	-0.504	-1.01	-0.028	-0.06
sr1	-0.601	-0.53						
sr2	0.280	0.56						
gr	-0.024	-1.18	-0.022*	-1.61	-0.056***	-3.95	-0.034***	-2.83
_cons	227***	3.93	230.33***	4.41	348.21***	6.31	215.03***	5.33
R-sq.	0.05		0.049		0.05		0.04	
F / Wald test	3.6***		6.41***		11.39***		31.92***	
Hausman (chi sq.)					38.69***			

***, **, * - statistically significant at 1%, 5%, and 10%, respectively

Table 3: Results of regression models for the first sub-sample (average cost per employee higher than 45,000 lei) – dependent variable ROA

Employee higher than 45,000 rel) – dependent variable ROA								
	OLS		Stepwise OLS		FE		RE	
	Coef.	T	Coef.	t	Coef.	t	Coef.	z
emplcost	4.023	0.67						
shtdr	3.725	0.52						
lgtdr	8.485	0.96						
size	5.254***	3.35	4.566***	3.19	6.168***	2.39	5.58***	3.37
cr	5.341***	2.2	2.036***	2.26	-2.254	-1.1	-0.676	-0.4
lr	-4.34***	-1.8	-3.754*	-1.7	1.644	0.71	-0.165	-0.1
sr1	0.678	1.44	0.377***	5.21	0.379***	8.88	0.318***	9.37
sr2	-0.106	-0.5						
gr	0.005	0.55						
_cons	-64***	-1.9	-33***	-4	-40.85	-3.1	-9.138	-1.03
R-sq.	0.23		0.22		0.27		0.27	
F / Wald test	4.08***		8.99***		25.06***		121.19***	
Hausman (chi sq.)					7.59*			

***, **, * - statistically significant at 1%, 5%, and 10%, respectively

By observing the results in Table 3, for the sub-sample with companies considered to ensure training and development opportunities for their employees, we can state that the relationship between employment costs and return on assets is positive, although not statistically significant. Despite of this result, the companies that invest in their employees tend to be more profitable if their liquidity ratio is reduced. However, statistically significant coefficients from OLS and stepwise model indicate that current ratio has a direct impact on ROA, which proves that these companies have a correct management of stocks as the higher the stocks, the better their economic performance will be. Based on the results of this sub-sample we are confirmed that larger companies or those with higher solvency ratio (to total assets) tend to be more profitable.

From the results included in Table 4 we conclude that, although the regression coefficient for the average cost per employee is not statistically significant, higher employment costs reduce the shareholders' returns. While the solvency ratio computed to total assets induces a direct influence on ROE, the solvency ratio referring to the ability to pay the obligations significantly restrains the financial performance of companies that invest more in human resource development. Also, current liabilities tend to restrain ROE, while larger companies offer higher returns to their shareholders.

Table 4: Results of regression models for the first sub-sample (average cost per employee higher than 45,000 lei) – dependent variable ROE

Employee higher than 10,000 (ref) dependent variable ROE								
	OLS		Stepwise OLS		FE		RE	
	Coef.	t	Coef.	t	Coef.	t	Coef.	z
emplcost	-23.524	-0.7						
shtdr	-10.396	-0.2	-45.762**	-2	91.008	1.48	23.014	0.46
lgtdr	87.302*	1.66						
size	19.853**	2.12	15.394*	1.8	35.338	1.11	17.773	0.84
cr	29.920**	2.06						
lr	-28.951**	-2.1						
sr1	7.229***	2.56	7.382***	3.25	14.746***	4.91	17.562***	-6.3
sr2	-2.544**	-2.2	-2.759***	-2.6	-5.511***	-3.8	-6.08***	-5
gr	-0.028	-0.5						
_cons	-94.151	-0.5	-149.12***	-2.8	-419.21***	-2.9	328.28***	-3.2
R-sq.	0.23		0.19		0.34		0.32	
F / Wald test	4.02***		7.16***		14.02***		73.54***	
Hausman (chi sq.)					13.84***			

***, **, * - statistically significant at 1%, 5%, and 10%, respectively

The results proved that there are some differences within companies, depending on their commitment to offering employees development. Based on the goodness of fit indicators, the model describes more variance in the performance of companies that

invest more in human resources (up to 27% of the variance in ROA, and up to 34% of the variance in ROE).

5. Conclusions

This research provides evidence sustaining the idea that human resource policies can induce a better corporate performance if they are focused on the continuous development employees, through training or educational courses. The results prove that the positive effect on economic performance (ROA) is immediate, most probably because it increases the effectiveness of human resources. Moreover, although the financial performance (ROE) may be affected over the short-term, as net profits are reduced due to high employment costs, the development of employees could increase the future returns ensuring a sustainable increase in profits. The financial data does not provide details on the division of staff costs, but considering that the employees participation rate in training courses tripled from 1999 until 2015, the assumption that at least 25% of the companies analysed (considering those with highest employment costs) provide training and other types of vocational courses for continuous development for their employees is acceptable.

Due to limited space, we did not develop further the analysis, but we mention that results for the rest of the companies (156 companies, after excluding the 47 companies with high cost of employment) indicate similar relationships to those presented for the overall sample. The coefficient of the average cost per employee is negative and statistically significant for most models, another proof for considering that lower levels of employment costs, therewith restricted development of human resources, affects performance. For all the models it was confirmed that the fixed effect model is more appropriate, indicating that the individual characteristics of the companies included in the overall sample or sub-samples may be correlated with the independent variables considered, influencing the regression results. Further research could consider sub-sampling on industry sectors, as well as considering the models on each quartile in order to observe in more detail the differences in the regression coefficients values and signs.

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FINANCIAL EFFICIENCY MEASUREMENT OF INDIAN BANKING SYSTEM USING DATA ENVELOPMENT ANALYSIS

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Abstract: The main objective of this paper to analyse the efficiency of the selected ten Indian Banks. The efficiency analysis was performed by using of DEA method. DEA (Data Envelopment Analysis) is the optimization method of mathematical programming to generalize the Farrell(1957). Thus DEA become a new tool in operational research for measuring technical efficiency. This examination focused on the measure of the operation efficiency of the Indian banking sector in the period 2010-2016. Indian Banking Sector is contributing to the development of the Indian economy in a significant measure. Financial efficiency measurement in this aspect is very vital. The analysis was made of two ways: constant return to scale (CRS) and variable returns to scale (VRS). In DEA, the use of constant returns to scale models requires the assumption of full proportionality between all inputs and output. The country's leading banks should pay closer attention to the regulations and administrations. The studies also show to tenure the private sector banks is better than the public sector banks during this period as well foreign banks. The results are insightful to the financial policy planner as it identifies priority areas for different banks, which can improve the performance. This paper evaluates the performance of Banking Sectors in India. Being major banks in the country, they deserve better attention by the regulators and the administrators. All the banks are operating in India and are represented in three homogeneous categories as per their size. Out of 10 banks, there are 3 foreign banks, 3 banks are nationalized and 4 private Indian banks. In the variable return scale model the public sector banks state bank of India (SBI), Panjab National Bank (PNB) are performing well, they have good efficiency. Since this study attempts to maximize output, so the output oriented Data Envelopment Analysis is used. The most efficient bank is one that obtains the highest efficiency score.

Keywords: efficiency; DEA; constant return to scale; variable return to scale; bank performance.

JEL Classification: G21.

1. Introduction

The performance of any economy depends on the banking sector as it is the main component of the financial services industry. Many organisation of the several sectors have challenged the changing financial conditions what was focused to find a more effective way to manage their business functions. The efficient banking system contributes to the implementation of the monetary policy of the country. The primary purpose of this paper is to analyse bank efficiency using commercial bank

data from India. The examination methodology based on Data Envelopment Analysis (DEA). Over the past few years, financial institutions around the world have made significant changes. For instance, technological developments, reducing the cost of information, increasing competition in both banks and non-bank financial intermediaries what caused huge changes in numerous financial systems. Bank efficiency in this transition process becomes an important problem.

"Data envelopment analysis provides a means of calculating apparent efficiency levels within a group of organisations. The efficiency of an organisation is calculated relative to the group's observed best practice. This chapter explains the basic concepts behind DEA and provides a simple graphical example. Some extensions to the DEA model, allowing the sources of inefficiency to be identified, are also discussed." (Steering Committee for the Review of Commonwealth/State Service Provision, 1997).

From the beginning of the 1990s, Indian banks have reviewed several changes to improve their efficiency. With this initiative, the performance of the Indian Scheduled Commercial Banks (Mohan, 2006; Reddy 2002) has improved greatly. This development has resulted in competitive pressures in Indian banks (Barr and Siems, 1996). As a result, pressures have been made to work effectively on Indian banks, with competitive power, future challenges and a tougher regulatory framework. Gupta et al. (2008) stated that the existence and development of banks had increased efficiency during high standards of increased competition and customer-focused services. Therefore, in today's economy, efficiency analysis of banking sector attracts more and more attention of researchers.

2. Literature Review

During the period 1990-91 India was facing a significant economic crisis, the reserve bank of India launched major reforms in the Indian banking sector in 1991 expected to create a more profitable, efficient and sound banking system based on Narasimhan Committee recommendation of financial sector reforms. In order to improve the efficiency of various banks through entry regulation, branch deletion, interest rate control and diversification of public sector banks (PSBs), state-owned banks can raise their capital with 49 per cent from markets. These reforms targeted the bank to improve the profit through a reduction in cash reserve ratio (CRR) and statutory liquidity ratio (SLR) to strengthen the banking system by introducing micro practical measures (Bhide 2001; Prasad and Ghosh, 2003; Kumar and Charles 2011).

The performance of any firm is counted on its financial parameter with strong efficiency, and the efficiency of a firm is relative to the competences of firms in a sample. DEA has been used to identify banks with the given output range various inputs in their removal. Sakar (2006) analyzed 11 banks in Turkey using input variables: Branch number, Employee per branch, Assets, Loans, Deposits and output variables: ROA (Return on Assets), ROE (Return on Equity), and Interest income (assets), Interest income (operating income), and Non-interest income (assets).

In the Indian context, there are some studies that have focused on the efficiency of the public sector banks (PSBs) using the DEA. Das (1997) conducted various technical, allocated and scale efficiency of different PSBs using the DEA method during 1999-1996. According to the study, the overall efficiency decreased by time,

technological performance has decreased and efficiency has improved slightly. Kumbharkar and Sarkar (2003) determined the pricing efficiency of public and private sector banks in India. The Stochastic Cost Frontier Model, which explains translog cost function. Seyfard and Zhu (1999) examined performance of 55 US banks using two-step DEA method. The results suggested relatively large scale bank while showing good performance on profitability. Wu, Yang et al. (2006) examined 142 banks in Canada and oversee the number and expenditure of employees for the input parameter, and some variables have been observed for output: deposit, income and bank loans.

Data Envelopment Analysis has been successfully used to measure the efficiency of commercial banks. The number of DEA's applications have appeared in the performance of the banks. Berger and Humphrey (1999) reviewed 130 operational studies of the financial sector with professional banks. There have been many attempts to study the efficiency and productivity of the banking sector in Developed countries - however, analysis of the efficiency of the banks of developing countries in India and related countries. Apart from the universal accounting mechanisms, RBI is also using data analysis to determine the effectiveness of the banking sector.

Many studies have been done on performance analysis using the DEA method in India. Bhattacharya et al. (1997) used the DEA method to measure the productive efficiencies of Indian commercial banks from 1980 to 1990 and impact of the policy on liberalizing measures taken in 1980 on the performance of the various category of the banks. He said that Indian public banks are the best performing banks because the banking sector has dominated Indian public sector banks and new private sector banks have not yet fully stood in the Indian banking scenario.

3. Research Methodology

Data envelopment analysis is a linear programming process for the range of analysis input and output. DEA model conception of variable return on the scale can be used for the calculation of input-oriented which allows a variable return to scale. In this article, it has been studied in private, public and foreign banks. The duration of the study is from 2010 to 2016. This study has used R software. This paper aims at analysing the technical efficiency of 10 major commercial banks in India in a very comprehensive manner using data envelopment analysis (DEA). For this, the present study has explored five areas of banking operational efficiency: income on the investment, interest income, Net NPAs, Interest Expended, operating expenses activities specified input-output data set of each of the areas. VRS, CRS (scale efficiency), DRS, IRS model of DEA technique has been utilized to review area wise relative technical efficiency of selected banks. In addition, the study also predicts efficiency as a complete average approach and product approach following the study.

4. Result

There is a mathematical approach to DEA that can be adopted which is illustrated using Linear Programming technique. In this paper, we have to take 10 scheduled commercial banks for FY 2010-2016.

Here, the findings for Multi-stage based constant returns to scale (CRS) are extracted and analysed and presented. The findings and the interpretations are by

input-oriented multi-staged CRS Data Envelopment Analysis. Input variables are interest expended and operating expenses while the output variables are interest income, income on investment and NPAs. Table 1 indicates the results of efficiency summary; PNB, CITI, DBS banks have an efficiency value of 1.000. Other banks have values less than 1.000 which indicates the need to improve their input variables. This is possible by either decreasing or increasing the input levels. For example, in the case of State Bank of India (SBI), they need to improve its efficiency by 05.85%. For example, in the case of Central bank of India (CBI), they need to improve its efficiency by 2.35%. In terms of other private banks, HDFC banks need to improve their efficiency by 13.71%, ICICI banks need to improve their efficiency by 40.58%. Another three private sector banks Axis, Yes and Standard Chartered Banks, banks need to improve their efficiency by 7.31%, 39.91% and 2.25% respectively.

Table 1. Constant return to scale (CRS) calculation

Banks	2010	2011	2012	2013	2014	2015	2016	Avg.
SBI	1.0000	1.0000	0.9156	0.9169	1.0000	1.0000	0.7583	0.9415
CBI	1.0000	0.9071	1.0000	1.0000	1.0000	1.0000	0.9283	0.9765
PNB	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
ICICI	0.4573	0.4524	0.4439	0.5927	0.6457	0.7688	0.7990	0.5942
HDFC	1.0000	0.7507	0.6448	0.9039	0.9074	0.9615	0.8719	0.8629
AXIS	0.9210	0.9068	0.7747	0.8855	1.0000	1.0000	1.0000	0.9269
YES	1.0000	0.4989	0.4317	0.4693	0.4884	0.6256	0.6922	0.6009
CITI BANK	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
STAD.CHRTD	1.0000	1.0000	0.8422	1.0000	1.0000	1.0000	1.0000	0.9775
DBS	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Source: Calculated by Author

Table 2. Variable return to scale (VRS) calculation

Banks	2010	2011	2012	2013	2014	2015	2016	Avg.
SBI	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
CBI	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9288	0.9898
PNB	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
ICICI	0.7788	1.0000	1.0000	1.0000	1.0000	0.9633	0.9121	0.9506
HDFC	1.0000	1.0000	1.0000	1.0000	0.9694	0.9987	1.0000	0.9954
AXIS	0.9921	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.9989
YES	1.0000	0.5646	0.6825	0.8483	0.9313	0.8817	0.7661	0.8106
CITI BANK	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
STAD.CHRTD	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
DBS	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Source: Calculated by Author

Variable returns to scale (VRS) is a type of frontier scale used in data envelopment analysis (DEA). It helps to estimate efficiencies whether an increase or decrease in input or outputs. (Cooper, Seiford, & Zhu, 2011). This method includes both increasing and decreasing returns to scale. Hence, VRS may exhibit increasing, constant and decreasing returns to scale when working in Data Envelopment Analysis Program (DEAP). In contrast to CRS model, Table 2 shows the current VRS model explained banks as efficient, namely SBI, PNB, CITI BANK, STAD. CHRTD. and DBS bank while CRS showed only three efficient banks. In the

case of Central Bank of India (CBI), they need to improve its efficiency by 1.02%. In terms of other private banks, ICICI bank need to improve its efficiency by 4.94%, HDFC banks need to improve their efficiency by 0.46%, Another two private sector banks Axis and Yes banks, banks need to improve their efficiency by 0.11% and 18.94% respectively.

(Benicio & De Mello, 2015) has stated, "if output increases by less than proportional change in inputs, there are decreasing returns to scale". Thereby, it can be interpreted that the interest income, income on investment and NPAs of the bank has increased by a larger proportion of the given amount of the interest expended and operating expenses thus they need to increase or decrease its interest expended and operating expense to become efficient.

The company must set the DRS after overstepping the extension limit. Continuous increase in all inputs and therefore, the expansion in the size of a firm from a particular point extends to the emergence of the DRS. Managing disability is one of the reasons for the DRS incident to the extent of management work efficiency. As the firm's size increases, incapability increases and the chances of a large number of product degradation increase greatly.

5. Conclusion

According to the available literature, few researchers conducted a non-parametric approach to measure the efficiency of the Indian banks. De (2003) found some evidence that private banks in India are more profitable than public sector banks. Kumbhakar and Sarkar (2003) used a cost function approach to find efficiency. They reported the difference in the growth rate between the Indian banks public and private banks in the pre-deregulation as compared to post-deregulation period. The results indicate that the efficiency of interest margin is dependent on time whereas the efficiencies of other outputs-non-interest income, investments and credits are dependent on time. This study focuses on determining the efficiency score of 10 banks and also comparing their efficiencies from 2010 to 2016. All the banks are operating in India and are represented in three homogeneous categories as per their size. Out of 10 banks, there are 3 foreign banks, 3 banks are nationalized and 4 private Indian banks. In the variable return scale model the public sector banks state bank of India (SBI), Panjab National Bank (PNB) are performing well, they have good efficiency. And foreign banks also have good efficiency in a variable scale model. Banks like Central bank of India (CBI), AXIS, ICICI, HDFC and YES bank can be a matter of concern as their efficiency scores are below satisfactory level. The major factor resulting in the poor performance by these five banks is their huge amounts of interest expended and operating expenses. Either these banks possess blocked/non-performing assets or are not able to make a set off between the deposits and advances.

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Appendix - Table 3 Rank based on average efficiency scores of ten years

Rank	Average Efficiency	Banks
1	1.0000	PNB
1	1.0000	CITI BANK
1	1.0000	DBS
2	0.9887	STAD.CHRTD
3	0.9882	CBI
4	0.9708	SBI
5	0.9634	AXIS
6	0.9313	HDFC
7	0.7893	ICICI
8	0.7772	YES

EFFECTS OF INTERNAL AUDIT ON FIRM PROFITABILITY. EVIDENCE FROM CEE COUNTRIES

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Abstract: *The aim of the paper is to analyze if independent internal audit committee has effects on firm profitability. By analyzing the annual reports of companies in 11 countries from Central and Eastern Europe (CEE), we aim to highlight the implications and relationships of internal audit independence and the effects on company profitability expressed through return on assets (using pROA acronym in the paper) and return on equity ratios (pROE). The data used in our paper is from 2004 to 2013. We analyzed the listed companies from Central and Eastern Europe using company financial characteristics data collected from Orbis database and dummy variable manually collected by investigating the annual reports of the companies from our sample. Our results, using OLS regressions on panel data (fixed and random effects), suggest that our independent internal audit variable has a positive sign on firm's profitability. Our findings suggest that independent internal auditors have an important role for the company's profitability in Central and Eastern Europe (CEE). The analysis could be important for corporate practices, as an evidence for strengthening the role of the independent internal audit committee in companies. In this respect, it could be argued that independent internal audit committee enhance its importance in creating added value, respectively increase company profitability by providing independent and objective opinions, assurance and consulting services regarding the company's activity.*

Keywords: *Internal Audit; Firm Profitability; Central and Eastern Europe.*

JEL Classification: *G3; M42.*

1. Introduction

The establishment of Audit Committees in Europe has become legally required in 2006 through Directive 2006/43/CE on statutory audits of annual accounts and consolidated accounts. Directive 2014/56/EU, states that audit committees must be composed of non-executive members in order to fulfil their mission properly and avoid conflict of interest stipulated also by Regulation 537/2014.

The competitive and constantly changing business environment employs companies under pressure to identify and manage all the risks to which they are exposed. The use of risk management techniques and tools in companies has expanded and internal audit by providing assurance and consulting services contributes in a variety of ways to the company and thus, increasing company profitability and being increasingly important in the current context of the economy. In practice, in companies from Central and Eastern European countries, the level of information provided by companies on the corporate governance system varies

significantly from company to company and is strongly influenced by laws and regulations of the country in which the company has the residence (Berglof and Pajuste, 2005). While there are differences between countries regarding internal auditing standards, it is necessary (that these principles) to be in conformance with IIA Standards (IIA, 2017). By analyzing the annual reports of companies from Central and Eastern European countries, we aim to highlight the implications and relationships of internal audit independence and the effects on company profitability expressed through return on assets ratio (coded pROA) and return on equity (coded pROE).

Our analysis contributes to the specialized literature by investigating the internal audit independence and its implications on company profitability using a sample of listed companies from 11 countries in Central and Eastern Europe. Furthermore, we consider that this analysis is important in corporate practices in strengthening the role of the independent internal audit committee in the organization, enhancing its importance in creating added value, respectively increasing company profitability. This paper is organized as follows: Section 2 reviews the literature, Section 3 presents the data and methodology used in our analysis, section 4 provides the results of our analysis and sections 5 delivers conclusions.

2. Literature Review

Internal audit committees perform work that is important for the reporting process of the company, especially for the external financial reporting (Prawitt et al., 2009) and is very important in improving quality regarding financial information (Botez, 2012). The importance of internal audit in the prevention and detection of fraud has led to a more in-depth analysis of the independence of internal auditors in the literature, as well as the establishment of audit standards to substantiate this concept (IIA, 2017). Internal audit evaluates and contributes in improving corporate risk management and controlling activity within an entity (Zaharia et al., 2014). In order to fulfil their mission and their objectives, internal auditors must be independent and objective (IIA, 2017; Berman, 2006; Balkaran, 2007 and Salierno, 2007; Christopher et al., 2009; Cohen and Sayag, 2010).

Using a sample of 260 US companies (Wallace and Kreutzfeldt, 1991) illustrates the benefits of having an internal audit department in a way in which firms with internal audit departments have higher profit, are liquid and more competent regarding management and accounting, and are more competitive and more efficient. Furthermore, internal audit department contributes in reducing the errors detected by external auditors.

Companies that have independent audit committees and meet at least twice a year are less likely to have fraudulent reporting (Abbott et al., 2000). Using a sample of 156 firms (Abbott et al., 2000) showed that firms with both criteria, independence and activity of the internal audit committee are more likely to detect and remove fraud. Thus, the work and independence of the internal audit committee reduces the likelihood of fraudulent reporting conducting an increase firm profitability.

Using a sample of UK-listed companies (Alzeban and Sawanb, 2015) found that an independent audit committee contributes to higher quality and transparency of financial reporting in an entity. Anderson et al., (2004) analyses the implications of internal audit on the performance of 252 firms in the Lehman Brothers Fixed Income

database and the S&P 500. They suggested that the independence of internal audit contributes in lowering the debt cost and has a positive impact on the company's performance. Zhou et al., (2018) analyzed the implication of internal audit among other corporate governance characteristics using a sample of 774 observations over a 5-year period (2008-2012) for Greek listed companies at the Athens Stock Exchange (ASE), defining the company's performance through return on assets (ROA) and return on equity (ROE). Their results suggest that the independence of internal audit committee has a positive but insignificant association with the company's performance.

In order to analyze the effect of independent internal auditors on company profitability we conducted the following hypothesis *H1. Independent internal audit committee has a positive effect on firm profitability.*

3. Data and Methodology

The data used in the analysis regarding the balance sheet and the financial characteristics of the companies was collected from Orbis database. Specific internal audit data was manually collected from companies' Annual Reports, as well as Internet searches for companies and members of the management body and audit committees. Variable description is presented in table no. 1.

Table 1: Variable description

Variable	Description	Data Source	Expected sign
Dependent variables			
pROA	The return on assets calculated as EBIDA divided by total assets.	Orbis	
pROE	The return on equity calculated as EBIDA divided by total equity.	Orbis	
Internal audit variable			
IAI	Dummy variable representing the independence of the audit committee, noted 1 if the audit committee is independent and 0 otherwise.	Hand- collected data	+
Independent Control Variables (Company Financial Characteristics)			
InLIQI	Liquidity ratio, calculated as natural logarithm of liquidity ratio	Orbis	+
InST	Stocks, calculated as natural logarithm of stocks	From Orbis and calculated	+
InDEB	Debtors, calculated as the natural logarithm of debtors	From Orbis and calculated	-
InSAL	Sales, calculated as the natural logarithm of Sales	From Orbis and calculated	+/-
rCS	Fixed assets turnover rate	Orbis	+/-
CASH	Cash flow / operating income	Orbis	+/-
Zscore	Z-Score regarding the probability of bankruptcy of the firm.	Calculated after Altman (2000)	-

Source: Authors computation

In calculating the dependent variables, pROA and pROE, we considered EBIDA as the return before interest, rates, depreciation and amortization in that we want to remove the characteristics of the fiscal system. By determining the profitability of companies with the EBIDA indicator, we will test the operational performance of a company that does not consider the characteristics of the fiscal system in different countries in Central and Eastern Europe that could distort the results.

Our control variables are used in accordance with (Abbott et al., 2000; Zhou et al., 2018), which are presented in table 1. In our analysis, we use seven control variables such as liquidity ratio, sales, debtors, stocks, turnover rate of fixed assets, cash flow/operating income and Z-Score regarding the probability of bankruptcy of the firm.

Our interest variable, iAI, indicates the independence of the audit committee, being represented by a dummy variable coded with 1 if the internal audit committee is independent, in that, there is no member in the committee that has also an executive position in the company and 0 if otherwise, in accordance with (IIA, 2017; Directive 2014/56/EU). Brief description of data is presented in table no. 2.

Table 2: Descriptive statistics

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Median	Pctl(75)	Max
pROA	878	0.0795	0.0740	-0.0656	0.0332	0.0704	0.1223	0.2430
pROE	748	0.2918	0.2017	0.0035	0.1638	0.2462	0.3789	0.8705
lnLIQI	880	0.3104	0.4957	-0.6730	0.0004	0.2733	0.6210	1.2943
lnST	854	10.4693	1.2983	8.1621	9.5594	10.3968	11.4079	12.7726
lnDEB	865	10.8304	1.3317	7.9625	10.0465	10.8393	11.8838	12.9492
lnSAL	878	13.0846	1.0214	11.5075	12.3977	12.8156	13.6995	15.3472
rCS	878	0.5816	0.5070	0.0198	0.1764	0.4270	0.8266	1.9315
CASH	767	0.1109	0.1042	-0.0337	0.0356	0.0847	0.1542	0.3544
Zscore	820	6.3428	7.5133	0.6672	2.4882	3.8145	6.3364	31.8922

Source: Authors calculation

As we can see from table no. 2, our data is represented by an unbalanced panel dataset that varies from 748 to 880 observations. This is explained by the lack of data regarding some of our independent variables and interest variable.

We used in our sample initially 118 listed companies (1180 observations) from Central and Eastern Europe selected for a ten-year period from 2004 to 2013. The criteria in the data selection was that the company had to be listed, to have data for at least 10 years on Orbis and the turnover to be more than EUR 100,000. Due to the lack of data and the lack of access to some companies' annual reports, especially regarding internal audit committee, the sample limited to about 697 observations for listed companies in Slovenia, Hungary, Slovakia, the Czech Republic, Latvia, Croatia, Romania, Estonia, Bulgaria, Lithuania and Poland.

We used the panel data model, that is defined through some restrictions such as parameter homogeneity (Croissant and Millo, 2008), for all i, t , applied to the general

model (equation 1), resulting a linear model pooling all the data across i and t (equation 2). To model individual heterogeneity, the error term has two separate components (one of which is specific to the individual) and does not change over time (equation 3). In the case of *fixed* or *random* effects models: the estimation depends on the properties of the error component, which may be either uncorrelated with the regressors (*random effects* model) or correlated (*fixed effects*, *within* or *least squares dummy variables* model).

$$y_{it} = \alpha_{it} + \beta_{it}^T x_{it} + u_{it} \quad (1)$$

$$y_{it} = \alpha + \beta^T x_{it} + u_{it} \quad (2)$$

$$y_{it} = \alpha + \beta^T x_{it} + u_i + \varepsilon_{it} \quad (3)$$

When time specific components are taken into consideration (e.g. Year) the error has three components:

$$u_{it} = u_i + \lambda_t + \epsilon_{it}$$

The individual component may be either independent of the regressors or correlated. If it is correlated, the ordinary least squares (OLS) estimator of would be inconsistent, so it is customary to treat u_i as a further set of n parameters to be estimated, as if in the general model $\alpha_{it} = \alpha_i$ for all t . This is called the fixed effects (a.k.a. within or least squares dummy variables) model, usually estimated by OLS on transformed data, and gives consistent estimates.

Our fixed effects equation becomes:

$$pROA_{it} = \beta_1 \ln LIQI + \beta_2 \ln ST + \beta_3 \ln SAL + \beta_4 \ln DEB + \beta_5 rCS + \beta_6 CASH + \beta_7 Zscore + \beta_8 iAI + u_i + e_{it}$$

$$pROE_{it} = \beta_1 \ln LIQI + \beta_2 \ln ST + \beta_3 \ln SAL + \beta_4 \ln DEB + \beta_5 rCS + \beta_6 CASH + \beta_7 Zscore + \beta_8 iAI + u_i + e_{it}$$

$$pROA_{it} = \alpha + \beta_1 \ln LIQI + \beta_2 \ln ST + \beta_3 \ln SAL + \beta_4 \ln DEB + \beta_5 rCS + \beta_6 CASH + \beta_7 Zscore + \beta_8 iAI + u_i + e_{it}$$

$$pROE_{it} = \alpha + \beta_1 \ln LIQI + \beta_2 \ln ST + \beta_3 \ln SAL + \beta_4 \ln DEB + \beta_5 rCS + \beta_6 CASH + \beta_7 Zscore + \beta_8 iAI + u_i + e_{it}$$

Where:

u_i is the unknown intercept for each entity

e_{it} is the error term (idiosyncratic errors)

α – constant

1. *Firm specific variables (used as control variables):*

$\ln LIQI$ (Liquidity ratio),

$\ln ST$ (Stocks)

$\ln DEB$ (Debtors),

$\ln SAL$ (Sales)

rCS (Turnover rate of fixed assets)

$CASH$ (Cash flow / operating income)

$Zscore$ (Z-Score regarding the probability of bankruptcy of the firm)

2. *Internal audit characteristics (our interest variable):*

iAI (independent internal audit committee)

4. Results

Some tests were conducted in order to verify the model conditions. For controlling possible correlations regarding the independent variables, we computed the Pearson's correlation matrix available in Appendix 1. Pearson's correlation matrix does not suggest any possible correlations between the independent variables as the largest correlation is between sales (lnSAL) and stocks (lnST).

We conducted both fixed and random effects, as presented in table no. 3, but only the fixed effects results are described, as Hausman (Hausman, 1978) tests (available on demand) for all implied equations suggests.

In table no. 3 we present our results regarding the effects of independent internal audit committee (iAI) on firm profitability, using as dependent variables return on assets ratio (pROA) and return on equity ratio (pROE). In Appendix 2, 3, 4 and 5 we present the complete results of both fixed and random effects models.

Table 3: Panel data regression results for dependent variables pROA and pROE

	(1) Random.individual. Dependent variable: pROE	(2) Random.individual. Dependent variable: pROA	(3) Within.individual. Dependent variable: pROE	(4) Within.individual. Dependent variable: pROA
VARIABLES				
iAI	0.0358** (0.0158)	0.0052 (0.0042)	0.0116 (0.0196)	0.0007 (0.0048)
lnLIQI	-0.1110*** (0.0183)	0.0097** (0.0048)	-0.0939*** (0.0223)	0.0064 (0.0053)
lnST	0.0151 (0.0101)	-0.0046 (0.0028)	0.0162 (0.0146)	-0.0096*** (0.0035)
lnDEB	-0.0328*** (0.0114)	-0.0101*** (0.0032)	-0.0581*** (0.0180)	-0.0124*** (0.0042)
lnSAL	0.0117 (0.0166)	0.0165*** (0.0047)	0.0430 (0.0267)	0.0276*** (0.0065)
rCS	-0.2218*** (0.0205)	-0.0701*** (0.0053)	-0.2685*** (0.0280)	-0.0691*** (0.0066)
CASH	1.1160*** (0.1053)	0.5859*** (0.0279)	0.9563*** (0.1348)	0.5873*** (0.0329)
Zscore	-0.0011 (0.0010)	0.0006** (0.0002)	-0.0006 (0.0010)	0.0008*** (0.0003)
Constant	0.3672*** (0.1324)	-0.0120 (0.0391)	-	-
Observations	682	697	682	697
R²	0.2169	0.4874	0.2024	0.4746
Adjusted R²	0.2076	0.4814	0.0810	0.3965
F Statistic	186.3707***	654.0588***	18.7493*** (df = 8; 591)	68.4208*** (df = 8; 606)

Note: Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Independent internal audit committee variable (iAI) has a positive effect on both our measures of firm profitability, return on assets (pROA) and return on equity (pROE) ratios, but regarding the fixed effects model it lacks the statistical significance. Our control variables such as liquidity ratio (lnLIQI) has a negative and statistical sign

on pROE and a positive sign on pROA, stocks variable (lnST) has a positive sign on pROE and a negative and statistical sign on pROA, debtors (lnDEB) and cash flow/operating income (CASH) variables have a negative and statistical significance sign on both pROA and pROE. Sales (lnSAL) variable has a positive and statistical sign on pROA, turnover rate of fixed assets (rCS) has a negative and statistical significance sign on both dependent variables (pROA and pROE) and Z-Score regarding the probability of bankruptcy of the firm has a negative sign on pROE and a positive and statistical significance sign on pROA.

Regarding our interest variable, our results in line with (Zhou et al., 2018) in which the independence of internal audit committee has a positive but insignificant association with the company's profitability, measured by ROA and ROE. Consequently, our results cannot confirm our hypothesis *H1: Independent internal audit committee has a positive effect on firm profitability*. Testing the robustness of our results, the random effects model confirms our hypothesis. Even though we cannot reject the null hypothesis, our variable has the expected sign and our results are in line with other studies (Anderson et al., 2004), that shows the importance of independence of internal audit contributes in lowering the debt cost and positive impact on the company's profitability. Moreover, we consider that in order to fulfil their mission and their objectives, internal auditors must be independent, being in line with (Berman, 2006; Balkaran 2007 and Salierno, 2007; IIA, 2017). Thus, an independent audit committee contributes to higher quality and transparency of financial reporting in an entity, in agreement with (Alzeban and Sawanb, 2015).

5. Conclusions

The research of the paper is focused on analyzing of the effect of independent internal audit committee on firm profitability. Using a sample of listed companies from Central and Eastern Europe countries from 2004-2013 period, our finding showed that the independence of the internal audit committee has a positive effect on company's profitability. Our results, being not statistically significant, we cannot reject the null hypothesis (that coefficient value could take zero value), so we cannot state that the independence of internal audit is directly reflected in company's profitability, as expressed through return on assets (ROA) and return on equity (ROE) in listed companies from Central and Eastern Europe countries. The results can be explained by the lack of data published by the companies that affects the dimension of our sample. It is expected that in larger samples, the results to be statistically significant, as other studies demonstrate. We consider, though, that the internal auditors should be independent in order to be able to carry out the audit mission in an objective, effective and efficient manner. We also think that independent internal audit committee contributes to better transparency and information communication to shareholders and stakeholders and contributes to the company's long-term objectives. As our judge and specialized literature suggests, when this independence is not present, the audit work may have adverse effects on the performance of the company, creating conflict of interests.

Our main limitation of the study consists in the lack of data regarding the internal audit committee and its activity, due to deficiency in information availability regarding firms. Thus, further research should be considered, when more data will be available.

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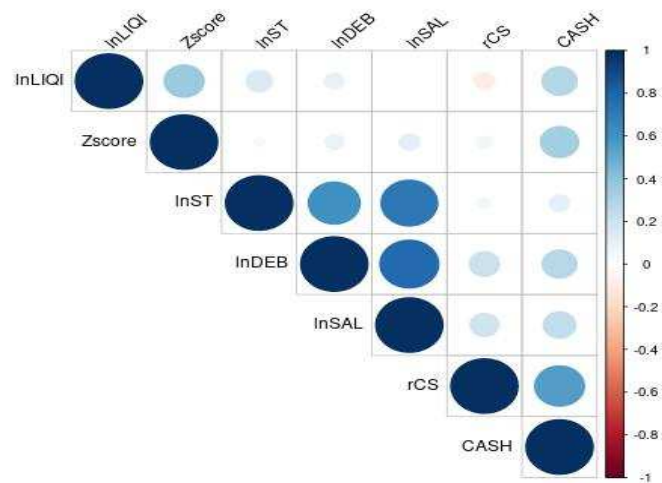
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Appendix 1. Pearson's correlation matrix



Source: Authors calculation

Appendix 2. Results of Random Effects models for dependent variable ROE and IAI

Data Panel regression Results							
<i>Dependent variable:</i>							
pROE							
	random.in dividual.pR OE.iAI.1	random.in dividual.pR OE.iAI.2	random.in dividual.pR OE.iAI.3	random.in dividual.pR OE.iAI.4	random.in dividual.pR OE.iAI.5	random.in dividual.pR OE.iAI.6	random.in dividual.pR OE.iAI.7
	(1)	(2)	(3)	(4)	(5)	(6)	(8)
iAI	0.0142 (0.0183)	0.0136 (0.0181)	0.0135 (0.0180)	0.0176 (0.0180)	0.0167 (0.0181)	0.0230 (0.0178)	0.0409** (0.0160)
lnLI		-0.0663*** (0.0183)	-0.0591*** (0.0190)	-	-0.0540*** (0.0193)	-0.0669*** (0.0189)	-0.1281*** (0.0179)
QI				0.0553*** (0.0191)			-0.1110*** (0.0183)
lnST			-0.0022 (0.0086)	0.0102 (0.0101)	0.0070 (0.0116)	0.0022 (0.0114)	0.0128 (0.0101)
lnDE				-0.0244* (0.0107)	-0.0287** (0.0132)	-0.0226* (0.0130)	-0.0247** (0.0114)
B							-0.0328*** (0.0114)
lnSA					0.0105 (0.0192)	0.0127 (0.0188)	0.0015 (0.0165)
L							0.0117 (0.0166)
rCS						-0.1334*** (0.0211)	-0.2038*** (0.0200)
CAS							-0.2218*** (0.0205)
H							1.0619*** (0.1015)
Zscore							1.1160*** (0.1053)
Constant	0.2802*** (0.0187)	0.2993*** (0.0193)	0.3136*** (0.0910)	0.4471*** (0.1082)	0.3891** (0.1521)	0.4281*** (0.1499)	0.4260*** (0.1298)
Observations	744	744	723	719	719	719	717
R ²	0.0001	0.0149	0.0115	0.0181	0.0185	0.0703	0.1967
Adjusted R ²	-0.0013	0.0123	0.0073	0.0126	0.0116	0.0625	0.1888
F statistic	-2.2850	10.7361***	7.5653*	12.5328**	12.8310**	53.6161***	173.6020***

Note: Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix 3. Results of Random Effects models for dependent variable ROA and IAI

Data Panel regression Results								
Dependent variable:								
pROA								
	random.ind ividual.pR OA.iAI.1	random.ind ividual.pR OA.iAI.2	random.ind ividual.pR OA.iAI.3	random.ind ividual.pR OA.iAI.4	random.ind ividual.pR OA.iAI.5	random.ind ividual.pR OA.iAI.6	random.ind ividual.pR OA.iAI.7	random.ind ividual.pR OA.iAI.8
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
iAI	-0.0048 (0.0061)	-0.0029 (0.0060)	-0.0020 (0.0058)	-0.0026 (0.0058)	-0.0034 (0.0058)	-0.0035 (0.0057)	0.0058 (0.0042)	0.0052 (0.0042)
lnLI QI		0.0284*** (0.0058)	0.0382*** (0.0059)	0.0382*** (0.0060)	0.0404*** (0.0060)	0.0352*** (0.0059)	0.0088* (0.0046)	0.0097** (0.0048)
lnST			-0.0016 (0.0027)	-0.0029 (0.0033)	- 0.0086** (0.0037)	- 0.0102*** (0.0037)	-0.0043 (0.0028)	-0.0046 (0.0028)
lnDE B				0.0022 (0.0033)	-0.0053 (0.0040)	-0.0049 (0.0040)	- 0.0112*** (0.0032)	- 0.0101*** (0.0032)
lnSA L					0.0183*** (0.0062)	0.0197*** (0.0061)	0.0175*** (0.0047)	0.0165*** (0.0047)
rCS						- 0.0484*** (0.0067)	- 0.0709*** (0.0051)	- 0.0701*** (0.0053)
CAS H							0.6197*** (0.0264)	0.5859*** (0.0279)
Zsco re								0.0006** (0.0002)
Con stant	0.0800*** (0.0068)	0.0705*** (0.0065)	0.0810*** (0.0291)	0.0710** (0.0342)	-0.0273 (0.0507)	-0.0036 (0.0505)	-0.0152 (0.0380)	-0.0120 (0.0391)
Obs ervat ions	871	871	845	836	835	835	734	697
R ²	0.0002	0.0235	0.0436	0.0440	0.0545	0.1085	0.4956	0.4874
Adju sted R ²	-0.0009	0.0213	0.0402	0.0394	0.0488	0.1021	0.4907	0.4814
F Stati stic	-2.6467	20.6827***	38.1113***	38.0591***	47.6396***	100.7077***	713.1928***	654.0588***

Note: Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix 4. Results of Fixed Effects models for dependent variable ROE and IAI

Data Panel regression Results								
Dependent variable:								
pROA								
	within.indiv idual.pRO A.iAI.1 (1)	within.indiv idual.pRO A.iAI.2 (2)	within.indiv idual.pRO A.iAI.3 (3)	within.indiv idual.pRO A.iAI.4 (4)	within.indiv idual.pRO A.iAI.5 (5)	within.indiv idual.pRO A.iAI.6 (6)	within.indiv idual.pRO A.iAI.7 (7)	within.indiv idual.pRO A.iAI.8 (8)
IAI	- 0.0119* (0. 0068)	- 0.0113* (0. 0068)	-0.0105 (0.0066)	- 0.0110* (0. 0066)	- 0.0126* (0. 0066)	- 0.0142** (0. 0063)	0.0024 (0.0048)	0.0007 (0.0048)
lnLIQ		0.0195*** (0. .0064)	0.0304*** (0. .0066)	0.0300*** (0. .0068)	0.0318*** (0. .0067)	0.0252*** (0. .0064)	0.0062 (0.0051)	0.0064 (0.0053)
lnST			-0.0038 (0.0035)	-0.0055 (0.0041)	0.0124*** (0. .0047)	0.0128*** (0. .0044)	0.0089*** (0. .0034)	0.0096*** (0. .0035)
lnDEB				0.0029 (0.0043)	-0.0060 (0.0051)	0.0083* (0. 0048)	0.0147*** (0. .0041)	0.0124*** (0. .0042)
lnSAL					0.0229*** (0. .0082)	0.0198** (0. 0078)	0.0295*** (0. .0063)	0.0276*** (0. .0065)
rCS						0.0767*** (0. .0081)	0.0695*** (0. .0062)	0.0691*** (0. .0066)
CASH							0.6320*** (0. .0312)	0.5873*** (0. .0329)
Zscore								0.0008*** (0. .0003)
Observations	871	871	845	836	835	835	734	697
R ²	0.0039	0.0158	0.0328	0.0330	0.0445	0.1473	0.4822	0.4746
Adjusted R ²	-0.1196	-0.1077	-0.0913	-0.0941	-0.0828	0.0325	0.4107	0.3965
F Statistic	3.0487* (df = 1; 774)	6.2013*** (d f = 2; 773)	8.4582*** (d f = 3; 748)	6.3028*** (d f = 4; 738)	6.8508*** (d f = 5; 736)	21.1622*** (d f = 6; 735)	85.6885*** (d f = 7; 644)	68.4208*** (d f = 8; 606)

Note: Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix 5. Results of Fixed Effects models for dependent variable ROE and IAI

Data Panel regression Results								
Dependent variable:								
pROE								
	within.indiv idual.pRO E.iAI.1 (1)	within.indiv idual.pRO E.iAI.2 (2)	within.indiv idual.pRO E.iAI.3 (3)	within.indiv idual.pRO E.iAI.4 (4)	within.indiv idual.pRO E.iAI.5 (5)	within.indiv idual.pRO E.iAI.6 (6)	within.indiv idual.pRO E.iAI.7 (7)	within.indiv idual.pRO E.iAI.8 (8)
iAI	-0.0137 (0.0210)	-0.0154 (0.0208)	-0.0145 (0.0211)	-0.0076 (0.0213)	-0.0097 (0.0215)	-0.0100 (0.0206)	0.0110 (0.0199)	0.0116 (0.0196)
lnLIQ	-	-	-	-	-	-	-	-
I	0.0760*** (0.0210)	0.0752*** (0.0226)	0.0699*** (0.0229)	0.0684*** (0.0230)	0.0861*** (0.0222)	0.1292*** (0.0217)	0.0939*** (0.0223)	
lnST			-0.0057 (0.0123)	0.0072 (0.0138)	0.0012 (0.0158)	0.0018 (0.0152)	0.0046 (0.0144)	0.0162 (0.0146)
lnDEB				0.0326** (0.0159)	0.0410** (0.0192)	0.0405** (0.0185)	0.0420** (0.0178)	0.0581*** (0.0180)
lnSAL					0.0218 (0.0282)	0.0074 (0.0271)	0.0275 (0.0264)	0.0430 (0.0267)
rCS						0.2074*** (0.0281)	0.2201*** (0.0267)	0.2685*** (0.0280)
CASH							0.8780*** (0.1315)	0.9563*** (0.1348)
Zscore								-0.0006 (0.0010)
Observations	744	744	723	719	719	719	717	682
R ²	0.0006	0.0201	0.0180	0.0236	0.0245	0.1024	0.1731	0.2024
Adjusted R ²	-0.1284	-0.1081	-0.1130	-0.1093	-0.1100	-0.0230	0.0558	0.0810
F Statistic	0.4268 (df = 1; 658)	6.7536*** (df = 2; 657)	3.8960*** (df = 3; 637)	3.8173*** (df = 4; 632)	3.1718*** (df = 5; 631)	11.9806*** (df = 6; 630)	18.7551*** (df = 7; 627)	18.7493*** (df = 8; 591)

Note: Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

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Abstract: *Human society is approached / studied by the integrated system of sciences in all its aspects, ie multicriterial and multidimensional. A particularly important area of investigation is represented by the economic or social relations or relationships, respectively the links between the members of society as individuals or constituted in different communities; an essential subsystem of these, in this case the distribution relations, are those of a financial nature, which are the subject of the preoccupations of the science of finance with all its branches, among which the public finances. As such, we perceive the finance / public finances, on the one hand, as an economic category or an economic concept, and on the other, as a science that studies the many aspects resulted from the development of specific relationships in all their complexity. The conclusion or finding that we need is, in our opinion, that the finances, including the public ones, are an area of human activity of both cognitive and pragmatic nature. The scientific character of the knowledge and practices specific to the public finances, respectively their scientific status, is unanimously recognized today as a natural result of the theoretical and practical accumulations gained over the years, especially after the works/ studies of A.Smith and D. Ricardo. The systematic preoccupations for defining and delimiting the object of study and action and / or manifestation of public finances have been intensifying since the last century, but concerns have been in the most advanced states of the world since the nineteenth century, but not only. The opinions expressed generally refer to the common elements, but there are also inconsistencies between them.*

Keywords: *financial economy; public economy; public finances; local finance; financial policy; financial flows; financial system.*

JEL Classification: G32.

1. Introduction

The hypothesis on which our scientific / doctoral research is based, is that the significance and timeliness of the field under consideration derives from a few fundamental elements, from which we consider that at least the following three are of major interest: the first of these is the *legacy of the past*, namely the authority / the reputation or notoriety and the contribution of those who have set the conceptual-methodological bases; the second is the way it is now seen its position in the scale of humanity, and the third is the implications, actual and potential, it can have on the dynamics and evolution tert take time path of economic and social for *the welfare* maximum possible *to all the* inhabitants of Earth, respectively, to solve as much as possible the great global problems faced by humanity.

We appreciate that the *finance / public finances* and *the financial phenomenon* surround this context in all its complexity. We consider this to be a pertinent / justified reason for their approach, which is what we intend to do in the further on, from a double perspective, in a dual quality, posture: on the one hand, as an objective,

natural outcome of the past social evolution, from very old times, marked by the emergence and development of the production of commodities, with its corollary the *money*, and of the state, under its various manifestations, and, on the other hand, as an *economic / social subsystem* called / asked to contribute to the lasting, without extreme convulsions, of the human progress. It is easy to see that the mission of *finance / public finances* is particularly difficult and, quite often, in some aspects, contradictory, controversial and controversable. We will highlight in the paper the contributions we consider the most valuable, starting with the moment of the *germination* of the science of finance, of the science of *public finances* and of the connections, which we consider the most significant of the *public finances* with the exercise of the *functions* the contemporary state.

The subject matter of the present *study* is illustrated and represented in a generous manner in the literature of economically developed countries as well as in Romania, especially through elaborate scientific papers and unquestionable notoriety. We start our documentation and analysis by investigating the concept of the one considered as the *parent / creator* of economic science, in particular the political economy, *Adam Smith*, exposed in the *Wealth of Nations*, without ignoring the precious expectations of the *Theory of Moral Feelings*. We will complete the investigation with the *remarkable contributions* of modern *financial science / finance public finances* in France, Germany, Italy, the United States and Romania. An important part of the study (research) will have as an object or focus on the dissemination of the most significant directions in which *public finances*, including the *local* ones, can be manifested in the most beneficial way. The economic analysis is doubled, especially in the situation of Romania, by the presentation and commenting on the legal framework. At the end of the *paper / study* we will formulate and present the conclusions that are required, and then attach the selective list of bibliographic references.

Our conclusion is that the existence and manifestation of *public finances* in the contemporary societies has an objective nature in the sense that all the conditions that led to their autonomy in the overall economic relations are maintained. In other words, it is absolutely necessary and possible to make money at the disposal of the state and public institutions and organizations for the satisfaction of certain needs; the cash flows generated by those processes are financial flows. The complexity of the satisfied needs on financial funds, through financial relations, also implies a complex character, which requires different treatment of their different segments. The totality of financial relationships forms a system, which we call the system of public finances or public financial system, and its different segments, differentiated according to various criteria, form links, subsystems or structural elements thereof.

2. Paper Body

The Public finances, inextricably linked to the existence and evolution of public communities at different levels, more or less centralized or decentralized, but especially the state (at the central level), are a prime component of contemporary economic and social life, and this is because of the considerable, rather large, 40% -60% of the national product or national income concentrated, distributed and used through central and local public authorities. Mobilizing and distributing the product or national income through public authorities involves an important transfer of purchasing power from individuals and businesses to public money and from them

to beneficiaries. As a result, *the public finance* and private consumption dimensions, the gross capital formation, the volume and the structure of the foreign economic relations of the country / state, ultimately the very general dynamic of the economic and social development, of the economic and social development of the country, social progress. *The public finances* of a central and local state produce / generate notable effects on the international level by integrating into the complex system of relations with global, regional or sub-regional financial and banking organizations - Romania's accession to the European Union is a significant example through its participation to the establishment and use of Community budget funds.

The evolution of global society, but not only, is accompanied by essential transformations in all its components. Mutations in *public finance*, including *public finance* ve *local* are both quantitative, structural and qualitative. As far as Romania's *local public finances* are concerned, we note that their development is deeply marked in the present stage by efforts to build an open, functional, competitive and competitive economy, with all the complexity and diversity of the social and other issues that they leads the path / dynamics to a new way of producing wealth. *Local public finances* feel and take over, more or less, all the shocks that rock the current Romanian society - the multidimensional, economic, financial world debt, especially the external debts, and the enumeration can continue, demonstrated and still demonstrates this thing.

The *designation of public finances* of a state, implicitly of *local finances*, regardless of the organizational level and of the political and civilian power in which they take place or manifest themselves, is to represent an active and powerful instrument, theoretical and practical, in order to achieve the declared strategic objective of the period that Romania is currently pursuing - namely the democratization of society on all levels and in all its compartments on the basis of a modern, high efficiency and competitive relationship in international relations, whose corollary is to increase the level of civilization of the country's population with the full range of beneficial consequences. The way or the means of achieving this goal is to modernize all economic, social, political, ecological and scientific-technological structures, according to the requirements of the contemporary progress - associated with the emergence of the new economy. The answer to this challenge is to bring these structures into line with the requirements of the world's scientific and technological revolution, along with the proper restructuring of the thinking and management system at the macro and microsocial level. One of the major coordinates of the contemporary societies is the increase of knowledge, information; knowledge is power, and the increase or augmentation of knowledge about knowledge is the one that will matter most in the future society, as claimed by well-known and reputable journalist Alvin Tofler. Knowledge becomes the most important resource of development. The target of *public finances*, especially by decentralizing them, is, among other things, to increase the degree of knowledge (The purposes of this research go beyond the detailed presentation of the subject of study of science addressing the issue of public finances, but, by way of example, we recall the most representative contributions in the field over time (over a century and a half). They are French, German, Italian, American, and Romanian economists who can be considered as pioneers or paths in the dense and complex hurdle of financial relations, by those who have contributed to the creation of a coherent system of rigorous concepts on which the building of the science of finance, public finances,

along with other elaborate foregrounds of human thinking and practice has been built - it goes without saying that they have also started from an inherited heritage). As it comes forward from the list of attached bibliographic references *of the work*, valuable ideas about what *public finances* are and should be *publicly* expressed since the end of the first half of the nineteenth century (Gandillot MR, 1840, p. 1) when it was argued that *public finance science* exposes laws levying and spending of economical values for public services, indife rent if they are or not retrieve evate budget, it accounted for cash or other goods, whether from taxes or other sources. The state being perceived as a special reality / entity that embraces private life, unites them and protects them, which provides them with a multitude of advantages at a reduced price, in other words, they procure public services, *public finances* are presented as a number infinite vital cells resulting from the millions of *existence* to centralize in the hands of the state and then sharing it according to its needs.

3. Conclusions

The documentation for the substantiation and elaboration of the present paper led us to a series of conclusions, some presented hereinafter.

1. We start from the evidence that the existence of *public finances* and, implicitly, of *local public finances* in contemporary societies has an objective nature in the sense that all the conditions that led to their autonomy in the economic relations as a whole are maintained, In other words, it is absolute making it necessary and possible to make funds available to the state and public institutions and organizations and to use them to meet certain needs; the cash flows generated by those processes are financial flows. The complexity of satisfied needs on financial funds also implies a complex carater, which requires separate treatment or analysis. The entirety of financial relations forms a system, which we call the *system of public finances* or *public financial system*, and its different segments, differentiated according to various criteria, form links, subsystems or structural elements thereof.

2. A constituent element of the organization or management of the national economy, the society as a whole, is the organization / management of *public finances* and N trick organizational structures of the State, public enterprises and institutions a role in determining the financial efforts required by the country's economic and social development and fulfillment of other categories of needs. Also, the management of the national economy involves decisions producing / generating financial effects over different time periods in the most varied fields of activity; programs, plans, strategies and economic forecasts contain provisions regarding the establishment and distribution of financial resources, the correlation between material and monetary flows and the ways of ensuring the financial, monetary and foreign exchange dynamic balance, and the monitoring of the implementation of financial decisions, the management of the patrimony public areas of interest in *public finance*.

3. There are a multitude of organs involved in solving the financial problems, components of the representative democracy system, administrative authority or special bodies of executive power or financial compartments in enterprises and institutions. The representative democracy bodies are the organs of the central and local state power, including the parliament and the county councils and the Bucharest municipality, Bucharest, municipal, urban and communal sectors. Under their direct guidance, the bodies of the central and local state administration, the

government, the ministries, other central bodies of the state administration, the prefectures and the townhalls, operate. The category of specialized financial institutions includes the Ministry of Public Finance, the banks, the Savings and Consignment House, the insurance and reinsurance companies, but not only. The financial compartments operate in ministries and other central bodies of state administration, in prefectures and townhalls, as well as in autonomous administrations, state-owned trading companies and public institutions. Some of these bodies are invested by law with the right to make decisions, others are responsible for the execution of decisions of the higher bodies with decision-making powers within certain limits, as well as control and guidance powers. They are specialized bodies and institutions with responsibilities in financial planning, implementation of plans, guidance and control, while others have only control responsibilities.

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VALUATION OF INTELLECTUAL CAPITAL BASED ON BARUCH LEV'S KNOWLEDGE CAPITAL EARNINGS METHOD

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Abstract: *In the scope of the present study, I deal with intangible assets and present those intangible assets that are accountable by the Hungarian accounting system and international financial reporting standards. The article mentions intangible assets existing in the everyday life of enterprises, although the accounting systems cannot fully present them for various reasons in their balance sheet. I present the intangible assets separately which have different statement ways and different future evaluation methods in various accounting systems. As numerous economists have tried to develop different methods/models for measuring the above assets, the study presents Baruch Lev's knowledge capital earnings model through an example of a company applying international financial reporting standards. The model divides the earnings of the company into three parts, earnings achievable through physical, financial and intangible assets. The model considers the value of intangible assets (intellectual capital) as a residual value remaining the deduction of the earnings linked to physical and financial assets. For the illustration of this method, a free cash flow-based model has been developed, which was solved in several variations using the Monte Carlo simulation, and the method applicability was demonstrated by analysing the simulation results of the practical example.*

Keywords: *Intellectual Capital; Intangibles; Valuation; IFRS; Hungarian accounting system; Baruch Lev's Knowledge Capital Earnings Method.*

JEL Classification: *M4.*

Introduction

Currently, intellectual capital plays a continuously increasing role in the life of enterprises. In the literature, it is referred to as intellectual capital or intangible assets as well, but irrespectively of the designations, they are non-material assets, what the companies try to measure through their accounting systems and present in their financial statements with more or less success. Lev and Daum (2004) demonstrated the increasing presence of intellectual capital in business life. As of the 1980s, there have been growing differences between the market and book value of companies listed in the stock exchange. The difference between the two values began to be treated as a sort of invisible asset, only a part of which appears in financial statements. It has been found amongst the companies of the S&P500 index that the calculated value of intellectual capital/intangible assets has increased from 38% to 62% in nearly ten years, while their book value declined from 62% to 38%.

Researchers dealing with intellectual capital have developed different measurement methods and models. However, it can be established that intangible assets presented through the accounting system do not represent the total intangible assets of companies. According to certain researchers, the solution to this issue could be

the development of a new accounting system. Consequently, several studies have been prepared, which compared accounting systems, putting special emphasis on US GAAP and IFRS. The studies sought to find out which accounting systems qualify as more useful and informative for investors, and which systems present the intellectual capital in such a way that it approximates better its real value.

A number of similar questions could be investigated, but it is highly probable that the real intellectual capital of companies significantly exceeds the book value of intangible assets represented by them.

1. Intangible Assets/Intellectual Capital

“For a public limited company to operate, it requires a number of assets. Many of these assets are tangible, while others are intangible”. (Bearly-Mayers, 2005 p.5)

What is an intangible asset or intellectual capital, and what is the difference between the two terms? The term intellectual appears mostly in management literature, while the term intangible assets are used by accounting literature. (Lev, 2001) Many researchers have already tried to determine and compose the definition of intangible assets and intellectual capital. Al-Ali (2003) refers to intellectual capital as a hidden resource used by the company to produce new products and services. According to Steward (1994), intellectual capital is an intangible asset of knowledge and information. Glautier et al. (2011) refer to intangible assets as assets that do not possess a physical appearance and future economic benefits originating from them cannot be reliably measured. According to Lev (2001), intangible assets are assets that include economic benefits without a physical and financial appearance. For example, a famous brand name cannot be classified as a physical (tangible) asset, yet it can have considerable value and might allow the company to achieve higher income and increase its earnings. (Lev, 2005)

The current economy operates more like a service- and knowledge-based economy than an industrial economy. Therefore, the majority of businesses can increase their earnings through their intangible assets or intellectual capital (McCracken et al., 2018). Accordingly, numerous studies deal with the measurement of intangible assets, and they elaborated various methods for determining the value of these assets. In the scope of my research, the Baruch Lev method is demonstrated through a Hungarian stock exchange listed company.

The majority of researchers agree that accounting systems have limited recognition of intangible assets in their financial statements, as opposed to material, tangible assets. Intangible assets not represented in accounting also create value for companies. According to Lev and Zarowin (1999), accounting systems are incapable of properly managing intangible assets and the value of these assets is not properly presented in the financial statements. The question may arise that if accounting systems are incapable of proper valuation, to what extent are different valuation models and methods that operate based on financial statements able to properly measure and evaluate intangible assets? (Damodaran, 2006).

1.1. Intangible Assets in the Hungarian Accounting System

In Hungary, the framework of the accounting system is provisioned by Act C of 2000. The Accounting Act determines which assets can be recognized as intangible assets, giving companies relatively few choices. According to the law, *“intangible assets within the balance sheet shall include non-material assets (rights*

representing assets except for rights related to real estate, intellectual property, goodwill), and advance payments on intangible assets, as well as value adjustments of intangible assets". (Act C of 2000) The Accounting Act allows the company to present the capitalized value of formation and reorganization and the capitalized value of experimental development among intangible assets (Fenyves et al., 2018). The Hungarian Accounting Act accurately lists and specifies the assets, which can be presented within the balance sheet; however, these assets are only a fraction of the actual non-material assets. The Hungarian Accounting Act also stipulates that planned depreciation shall be accounted in the case of intangible assets, which do not have a valid, useful life, in which case the stipulations of the law determine the depreciation. Consequently, after a certain period, the accounting value of non-material assets presented by the company may be reduced to zero, even though it contributes to the earnings of the company (Fenyves et al., 2018).

In some cases, the company is allowed to decide on the appearance of intangible assets. For example, the company may capitalize the expenses of formation and reorganization based on its own decision and the same is true of direct costs associated with experimental development. In this case, the capitalized value of formation and reorganization and experimental development appear in the balance sheet as intangible assets, and then they are depreciated through the planned depreciation of the asset.

It is important to mention that the Hungarian accounting system allows for value adjustment of certain intangible assets (intellectual goods and rights representing assets), through which it seeks to present them separately in the balance sheet with their "*real*" value among intangible assets. It is necessary to be aware of the market value to determine the amount of value adjustment, which however cannot be determined in all of the cases.

1.2. The Appearance of Intangible Assets within the System of International Financial Reporting Standards

As opposed to the Hungarian accounting system, international financial reporting standards (subsequently IFRS) do not stipulate the scope of assets that qualify as intangible assets. IFRS indicate the definition of the asset and then the definition of intangible assets. If an asset meets the definition criteria of assets or intangible assets according to the IFRS, it may be presented as an intangible asset in the financial statements (Böcskei et al., 2017)

The criteria of assets to be presented are controllability, i.e., the asset shall be owned and controlled by the company, it shall be the result of past events, and future benefits shall be associated with it, which is also referred to as probability criteria by IFRS. (Madarasiné Szirmai - Bartha, 2016) Regulations regarding the presentation and valuation of intangible assets are dealt with by IAS 38 Intangible Assets and IFRS 3 Business Acquisition Standards. According to the standard, intangible assets are without physical substance and are identifiable non-monetary assets, can be transferred separately from other assets and derive from contractual or other rights. (Lakatos et al., 2013)

If in the course of the analysis of expenses of establishing an intangible asset they are found to meet the mentioned criteria, then the expenses are capitalized and the intangible asset can be presented in the financial statements. In any other case, the incurred expenses involve the earnings of the given year.

According to the IFRS, intangible assets can be acquired, or they can be results of self-creation. Acquired assets can usually be included with intangible assets. However, in many cases, the question is, whether they possess a future economic benefit. Intangible assets acquired in the context of a business acquisition require more investigation. In the course of the acquisition process, assets of the acquired company might include items that were present within the company without physical appearance, but did not meet the criteria for intangible assets and thus were not recognized in the financial statements of the company. In this case, the asset should be included in the consolidated financial statement of the company (Lakatos et al., 2013).

Upon the acquisition of a company, goodwill also arises in the case of internally produced assets; this is governed by IFRS 3 (IFRS 3 Business Combinations). Goodwill is the difference between the net asset value and the paid price of the acquired company. The non-material assets mentioned above are identified among the net asset values of the acquired company. Consequently, goodwill could also mean the value of assets that were not identified during the acquisition. The difference between the net asset value and the paid price of the acquired company is reduced by the new intangible assets received in the course of the acquisition, which could not be presented in its financial statements (for example, an internally produced client list) (Lakatos et al., 2013), but which can be disclosed in the consolidated financial statements of the company during the acquisition. If we assume that the acquisition value represents the actual value and all intangible assets were identified during the acquisition, the goodwill is zero.

When an internally generated intangible asset related to research and development is created, IFRS distinguish between the two phases and only allow capitalization of development costs if the following conditions are met (IAS 38 Intangible Assets):

1. Technically feasibility.
2. The company can use or sell the asset.
3. There is an expectable economic benefit in the future.
4. Intention and ability to finalize the development.
5. Costs are reliably measurable.

In contrast to the Hungarian accounting rules, IFRS does not allow the capitalization of the expenses of formation and reorganization, which can only be accounted to the earnings of the given year.

By the above, it may appear that IFRS set stricter criteria for the accounting process for intangible assets and that expenses that emerged for the creation of intangible assets are more likely to be accounted to the earnings of the given financial year. We can conclude from this - perhaps erroneously - that in Hungarian accounting, more intangible assets can be identified in the financial statements than by stricter international financial reporting standards. In their study, Sahut et al. (2011) investigated 1,855 companies, which operated in different European countries and prepared their financial statements according to their local accounting systems before their transition to IFRS. The study analysed the period before and after the transition and found that the presence of intangible assets and goodwill in the financial statements was 21% higher following the transition to IFRS. It is likely that if similar research was conducted in Hungary focusing on the financial statements of companies that have recently transitioned to IFRS, we could draw a similar conclusion. This may happen even though IFRS may appear to recognize certain assets as intangible assets in a more restricted manner.

1.3. Intellectual Capital within the Company

It has been mentioned earlier that the majority of companies rely on their intangible assets or intellectual capital to increase their earnings (McCracken et al., 2018). These assets were divided into three main groups by Stewart (1997):

1. Human capital
2. Structural (or organizational) capital
3. Relational capital

Human capital includes the skills, abilities, experiences, and knowledge that employees possess (Jarboe, 2007). Accounting systems also try to trace the human capital, for example in the case of Hungarian accounting, the value of company formation and reorganization, and the value of research and development can be presented as intangible assets, where - besides other direct costs - wage costs of the employees concerned are also capitalized and appear as intangible assets on the 'assets' side of the balance sheet. In the case of IFRS, the situation is similar when development costs are capitalized as intangible assets once the specific criteria have been met. However, accounting systems are unable to represent all employee knowledge, professional competence, ability, and experience. Wage costs of employees do not necessarily reflect the value they create. Pasban and Nojed (2016) consider human capital to be the most difficult to measure and control amongst capital types.

Organizational capital is a knowledge that is possessed by the company; it might involve procedures, organizational processes, and cultures (Jarboe, 2007).

Relational capital may apply to any external relationship that the company possesses (Jarboe, 2007). In the case of relational capital, accounting systems also have the ambition to properly evaluate and represent it (for example, the above-mentioned client list, trademark and brand name); the value of this capital includes the network of relationships with customers and clients. It is not the 'logo' alone that represents value itself, but the circle of customers behind it who are willing to buy and pay more for a given product just because it has a certain brand.

2. Data and Methodology

In the scope of the research, I determined the value of the intangible assets/intellectual capital of MOL Hungarian Oil and Gas Plc. (MOL) using the Baruch Lev method, which is based on the earnings related to "invisible assets" (intangibles). For the calculations, the 'mc2d' two-dimensional Monte Carlo simulation module of the R statistical system was applied (Tarnóczy et al., 2011). The data required for the calculations was downloaded via the EMIS database.

2.1. Introduction of MOL Plc.

MOL Plc. was established in 1991 and has since become one of the major oil and gas companies in Central Europe. Based on its revenue, the company is considered to be the largest company in Hungary (BÉT, 2017). The consolidated financial statements, which refer to the accounting date of 31st December 2017, it possessed 4,321,700 million HUF of total assets, 4,130,320 million HUF of net income and 316,410 million HUF profit. Most of the revenue originates from Hungary, but the company also generates significant income from Croatia, Slovakia, Italy, and Austria (MOL, 2017).

2.2. Baruch Lev's Knowledge Capital Method

According to *Daum (2001)*, Baruch Lev's knowledge capital method assumes that three types of assets of the companies are involved in the creation of earnings:

1. Physical assets (tangible assets)
2. Financial assets (stocks)
3. Immaterial assets (intellectual capital)

Namely, the earnings achieved by the company are based on these types of assets. Physical and financial assets of the above three asset groups are based on the values represented by the financial statements of the company (*Daum, 2001*). It is assumed that in the case of valuation of physical/tangible assets, the company seeks to present them at their actual value in its financial statements. As MOL Plc prepares its financial statements by the IFRS, physical assets are valued based on the valuation methods applied by the IFRS. IFRS, through the requirements of different standards, strive to present tangible assets at their actual value. The situation is similar in the case of financial assets, where the market value of the assets is determined year after year, and the revaluation of assets takes place in the financial statements.

The method is based on the following formulae:

$$\text{Earnings to physical assets} = \text{value of physical assets} * \text{expected rate of return on physical assets}$$
$$\text{Earnings to financial assets} = \text{value of financial assets} * \text{expected rate of return on financial assets}$$
$$\text{Earnings to intangible assets} = \text{value of intangible assets} * \text{expected rate of return on intangible assets}$$

(Wall et al., 2004)

According to the method, earnings of the company have to be divided into three parts and assigned to the assets that had a role in their creation. Calculations are carried out with the following four steps in mind:

Step 1: Determination of the earnings created by physical/tangible assets.

Step 2: Determination of earnings created by financial assets

Step 3: Determination of the earnings created by intangible assets, which is the difference between the total earnings of the company and the previously determined earnings originating from physical and financial assets.

Step 4: The value of intangible assets is the ratio of the earnings originating from intangible assets and the expected rate of return on intangible assets (Tarnóczy – Fenyves, 2018).

According to Baruch Lev, for determining the expected rate of return on financial assets, the returns of the 10-year government securities (*Daum, 2001*) have to be taken into consideration, which is 3.02% in our case (Állampapír, 2019).

The Return on Assets (ROA) index was applied to determine the expected rate of return on physical assets. The first 48 companies operating in Hungary were selected from a list where they were ranked according to their net sales revenue to determine the value of the index; their ROA indexes were averaged, which is 7.99%. Companies were selected that are assumed to possess a larger amount of intangible assets based on their activities to determine the expected rate of return on intangible

assets. Accordingly, the ROA indexes (2017) of companies operating in biotechnology research and development and software development industry were averaged, which is 9.94%.

2.3. Monte Carlo Simulation

For the solution of the model compiled for company valuation, the Monte Carlo simulation was applied, which has been widely used in the past decades. The method is utilized both in statistics and economics (*Chib - Greenberg, 1996*). The simulation helps determine the earnings originating from intangible assets, which is the basis of the determined value of intangible assets (intellectual capital). For a more accurate determination of the value, forecasts were made with the assets and liabilities of MOL Plc. A triangular distribution was applied, which is a special case of the beta distribution to produce random numbers required for forecasting. Forecasts were made for the next five years (2018-2022). The normalized earnings for tangible and financial assets were determined using the forecasted and past (2012-2017) values (10 years). Two thousand runs were performed with the simulation.

3. Evaluation of Results

Following the simulation, there were 2,000 data available for analysis for each variable. First, the basic statistical characteristics of the most important variables were calculated (minimum, first quartile, median, third quartile, maximum, mean, standard deviation) for the normalized earnings, tangible assets, financial assets, and intangible assets, as shown in Table 1.

Table 1 shows the extent which the examined variables have regarding the four quartiles. It is true for every variable that higher standard deviation occurs in the lower and upper quartiles. The table also shows that there is little difference between the median and mean in the case of all variables, suggesting that the values show nearly normal distribution. Based on the mean of each variable, it can be stated that most of the normalized earnings (62%) are generated by intangible assets, as clearly illustrated in Figure 1. Table 1 also shows that the high standard deviation of the normalized earnings is reflected in the intangible assets. This might be the consequence of the fact that the earnings of intangible assets are determined on a 'residual basis' and high differences are transformed into the new value.

Table 1: Main statistical characteristics of normalized earnings

Statistical properties	million HUF			
	Normalized total earnings	Normalized earnings of tangible assets	Normalized earnings of financial assets	Normalized earnings of intangible assets
Minimum	-1 464 744	98 970	15 926	-1 655 285
1 st quartile	88 604	136 115	25 299	-98 608
Median	473 701	150 069	29 044	289 744
3 rd quartile	865 281	165 837	33 119	686 177
Maximum	2 178 852	221 836	49 304	1 986 178
Mean	472 397	151 080	29 421	291 895
Standard deviation	584 323	20 729	5 628	585 067

Source: own editing based on calculated data

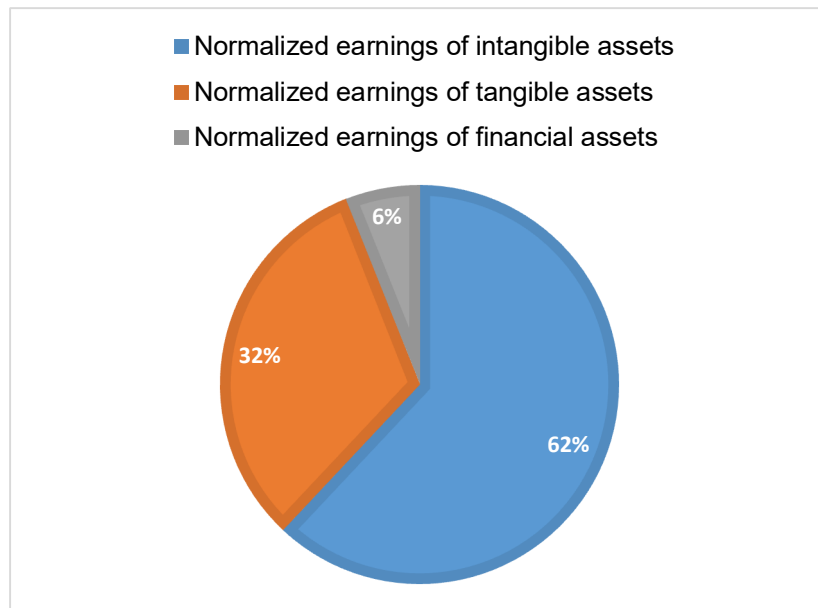


Figure 1: Distribution of normalized earnings amongst tangible, financial and intangible assets based on their calculated mean values

Source: own editing based on calculated data

Essentially, normalized earnings are not generated by the intangible assets that the company has presented in its financial statements, but by the intellectual capital that the company has not disclosed, because the accounting systems do not support their representation, and in some instances of the IFRS. Distribution of normalized earnings also shows that intangible assets generate a higher portion of the earnings for the company.

Table 1 shows that the earnings generated by intangible assets can also be negative. Therefore, with the help of a normal distribution function, the probability of occurrence of different positive values for the earnings of intangible assets has been examined, as shown in Table 2.

Table 2: Probability of occurrence of the normalized earnings of intangible assets

Normalized earnings of intangible assets (million HUF)	Probability of occurrence
> 0	69.11%
> 100 000	62.85%
> 250 000	52.85%
> 500 000	36.10%
> 750 000	21.68%

Source: own editing based on calculated data

Table 2 shows that there is a 70% chance for intangible assets to generate positive earnings. The negative earnings were due to the large fluctuation in the basic data and its significant standard deviation. For the model for approaching reality as close

as possible, the substantial standard deviation was not reduced, and this led to the possible occurrence of negative values upon the utilization of the random numbers. Although the probability for normalized earnings of intangible assets to be higher than zero (positive) is close to 70%. However, there is only approximately 36% probability for the earnings of intangible assets to exceed 500 000 million HUF.

Table 3 demonstrates the normalized value of intangible assets. The normalized value of intangible assets is equal to the ratio of the earnings generated by intangible assets (normalized earnings of intangible assets) and the expected return on intangible assets. Determination of the expected returns was also carried out using the simulation. The normalized value of tangible, financial and intangible assets was also evaluated with the basic statistical properties used earlier.

Examination of the mean values clearly shows that intangible assets account for the majority of the assets of the company, even though different findings were recorded upon the analysis of the financial statements. This suggests that the company has an amount of intellectual capital that cannot be shown by IFRS. The negative number representing the normalized value of intangible assets indicates that there might be cases when the book value of assets exceeds their actual value.

Figure 2 shows that according to the data calculated via the described method, intangible assets/intellectual capital accounts for more than half of the assets of the Plc.

Table 3: Main statistical characteristics of the normalized values of tangible assets, financial assets and intangible assets

million HUF

Statistical properties	Normalized earnings	Normalized earnings of tangible assets	Normalized earnings of financial assets
Minimum	1 781 753	627 513	-42 047 946
1 st quartile	2 055 422	883 644	-917 516
Median	2 157 796	968 811	2 802 170
3 rd quartile	2 266 457	1 059 958	7 014 367
Maximum	2 752 418	1 421 016	45 805 680
Mean	2 168 014	975 166	3 376 096
Standard deviation	155 830	127 687	7 537 160

Source: own editing based on calculated data

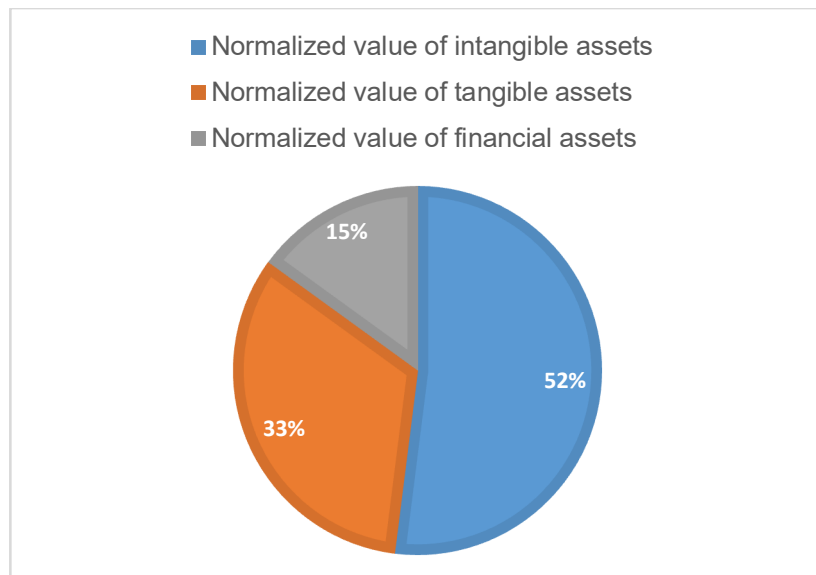


Figure 2: Distribution of the normalized value of assets based on the calculated mean values

Source: own editing based on calculated data

Regarding the normalized value of intangible assets, probabilities of occurrence were also calculated, which are demonstrated in Table 4.

Table 4: Probability of occurrence of the normalized values of intangible assets

Normalized value of intangible assets (million HUF)	Probability of occurrence
> 0	67.29%
> 100 000	66.81%
> 250 000	66.08%
> 500 000	64.86%
> 1 000 000	62.37%
> 2 000 000	57.24%
> 3 000 000	51.99%

Source: own editing based on calculated data

Table 4 shows the probability of the normalized value of intangible assets to be above zero is 60%. Even the scenario when the normalized value of intangible assets exceeds 3 million HUF – which is higher than the median value – is above 50%.

Conclusions

Intangible assets pose a challenge for both investors and accounting professionals, but also corporate evaluators. This challenge does not only concern their measurement but also their management. Currently, it is usually not argued that knowledge has a value-creating role. Since knowledge is utilized through people in the course of corporate activity, dealing with the workforce and human resource

management play an increasingly important role. It is also not disputed anymore that external stakeholders of the company also contribute to the creation of corporate value. The third element is organizational capital. If we accept the definition of system theory and cybernetics according to which structure is the carrier of systematic capabilities, the role of this 3rd element is not debatable either.

It is also necessary to deal with the value of intellectual capital because we seek an answer to the emerging difference between market value and book value. This difference might prove to be quite significant from time to time.

The carried out calculations confirm that the presented model might be suitable for the determination of corporate intellectual capital. It was successfully demonstrated that intangible assets presented and not disclosed in the financial statements represent a very significant proportion in the case of the investigated company. The resulting value can be considered significant even if we take into account that the findings of the model might be subject to inaccurate estimation. However, further refinement of the model is also required as the obtained values show a significant standard deviation. The results are also influenced by the adequately accurate estimation of parameters used for the calculations. A more accurately elaborated model and better estimation of parameters, or the use of other probability distributions, might result in more reliable findings.

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ANALYSIS OF MAJOR ASSET STRUCTURE INDEXES OF ORGANIZATIONS DEALING WITH SPORTS ACTIVITIES AND THEIR RELATION WITH THE NOTES TO THE FINANCIAL STATEMENT

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Abstract: *Sport is one of the most decisive elements of global economy, constantly opening up new and emerging markets, causing profit-oriented companies to appear. The GDP-measurable impact of this industry shows a growing and increasing tendency. Therefore, it was considered important to examine the financial statements of companies involved in sports activities, because if the asset side of the balance sheet of a company is taken into consideration, it can be established that all organizations need to have sufficient stability in order to maintain continuous operation, while adaptability requires appropriate flexibility. In order to make established decisions, it is essential to conduct a thorough economic and financial analysis. This analysis provides the management with crucial information on the operation of the system, and ensures its awareness and a level of knowledge. Our primary objective is to analyse the financial situation of sports companies, including the presentation of major asset structure indexes. The survey involves mapping the relationship of the indexes with the notes to the financial statement, namely their conformity with the mandatory content stipulated by the Accounting Act. The database of the study is established on the financial statements of non-profit and profit-oriented organizations (for the financial years of 2014-2017) engaged in sports activities as their primary business according to TEÁOR 931 (the Hungarian version of NACE). Insufficient information provided by non-profit organizations was a limiting factor of the study, therefore only profit-oriented enterprises were analysed in the scope of the research.*

Keywords: *sports sector; indexes reflecting the financial situation; asset structure indexes; notes to the financial statement.*

JEL Classification: Z2.

1. Economic Significance of Sports

Globally, sport is one of the largest industries, which possesses a huge amount of consumer demand, contributes to employment, and generates increasing revenue. Currently, it is one of the most significant elements of the global economy, which is constantly opening up new and emerging markets, which shows an intensifying effect in terms of GDP (Farágó et al., 2018). Average annual growth rate of the global sports market between 2009 and 2013 was 7%, which means that the growth rate of the sector exceeds GDP growth rate in a significant proportion of national economies, especially in large markets such as the United States, Brazil, United Kingdom and France (Bácsné et al., 2018). Evolution of the market-based operation of sports was defined by its participation in the social value-creating processes of companies (Konczosné Szombathelyi, 2014). According to Farágó (2016),

development of the sports sector results in the growth of national economy through the expansion of the sports industry. (Faragó, 2016) Spectator sports such as professional sports and 'media-capable' sports have become part of the entertainment industry and can be interpreted as a specific area. (András, 2011) The globalized appearance of sport stems from the fact that in professional sports, business leaders make decisions based on the opportunities of the world, they gather their prospects for their decisions from the world in a complex manner. (Chikán, 2008)

The development level of the economic status, GDP growth and high incomes are the three main factors that influence sports economy; these factors affect the amount spent on sports. Based on the research of Faragó et. al (2018), nations in Europe spend 2% of their consumer expenditure on sports. Research of Bernard and Busse (2004) revealed that gross national income (GNI), gross domestic product (GDP) and successfulness of professional sports are interrelated; there is a positive correlation among them. The amount of capital a country invests in sports is also manifested in sporting success. Countries with higher GDP are fundamentally able to invest more money in sports, which is defined by national sport policies. Based on the research of Nevill et al. (2009), it is clear that after World War II, countries that won Olympic medals have previously dedicated substantial financial support for sports.

Market of sporting goods, organization of competitions and sport tourism can be considered as part of the sports economy. The market of sporting goods is dominated by sports, which are also represented in professional and mass sports, such as running, cycling, football, skiing. Sports stores have an ever-increasing product line for certain sports types to meet the changing, widening sporting demands. Organization of competitions is carried out by business entities; it generates profit, and produces considerable economic profit by being expanded by the media, (Ironman, marathon, cross-country skiing competitions). Sports tourism is linked to globalization, by extending the economic power of sports. Sport is not only an option for spending leisure time anymore; it is also a productive unit of economic life and national income. Through its services, it operates in the sports industry, which contributes to the production of GDP, and thus it is part of the global economy. (Balogh et al., 2013).

In one of its studies A.T. Kearney, a management-consulting firm, presented that the average annual growth rate of the sports market between 2009 and 2013 was 7%, thus exceeding the GDP growth rate in a significant proportion of national economies, especially in the United States, Brazil, the UK and France (Collignon - Sultan, 2014). Based on a study prepared for the European Commission, it is established in terms of the role of the sports sector within the EU that the gross value added of sports is 1.13% of total EU gross value added if all sports-related activities are considered. However, if the production of sports event-related and sporting goods and services are also taken into account, it represents 1.76% of the total EU gross value added (EU, 2012)

2. Importance of the Analysis

Analysis is an indispensable tool of management, a method by which the knowledge, which is critically necessary for managers, can be achieved and business can be understood, evaluated and developed. Analysis is an activity aimed at the

observation and evaluation of the earnings of a given enterprise (Baloghne et al., 2006). In most cases, the information base of the analysis is the financial statement prepared and published by the given company, which is governed by Act C of 2000. According to the Accounting Act, it is essential for the functioning of market economy that market participants, both external and internal, have – for the sake of their established decision-making – all the information, which are necessary for the wealth, financial and income position of entrepreneurs, profit-oriented organizations and organizations that carry out other business processes.

3. Material and Method of the Study

The analysed database includes companies that carry out sports activities, and which have identified their main activities as TEÁOR 931 “Sports activity” and have their residence in Hungary. The database includes companies established before 1st January, 2014, namely the ones that already have 4 closed business years. The companies were selected from the OPTEN company database and the financial statements of the involved companies were obtained from there as well. Data of the annual statements of the companies were collected for 4 years, from 2014 to 2017. Ultimately, only the companies that have financial statements for all 4 analysed years and that are not being liquidated or terminated remained in the sample. Consequently, the number of companies that could be included in the analysis decreased to 1747.

For the analysis, Microsoft Excel spreadsheet software, and the data management and calculation options of the R statistical system were applied (Everitt – Hothorn, 2010; Huzsvai, 2013). The R statistical system was utilized through Excel, by means of RExcel (Heiberger – Neuwirth, 2009).

4. Analysis of the Companies by Quartiles

In the scope of the quartile-based analysis, examinations proceeded from basic statistical characteristics, which are mean, extent of deviation, relative standard deviation, skewness and kurtosis. The analysis was made for a single variable, net sales revenue, only for the year 2014, which means that the involved 1747 companies were ranked by their net sales revenues in an ascending order and were divided into four equal parts. For such a quartile-based classification, any accounting property can be selected, which might be considered important for the evaluation of a business activity.

Analysis of the main asset structure indexes of companies by means of the quartile classification based on net sales revenues

Three main indexes were highlighted from among the asset structure indexes, by which the main group-based distribution of the assets – classified by their role within the activities – of sports companies is demonstrated. That is, the ratio of fixed assets, tangible assets and accruals is presented over the reference period of 2014, 2015, 2016 and 2017. Previously, distributions of the 1747 involved companies by revenue were presented, and the same companies will be shown in each quartile subsequently. Most of the indexes used for analysing the financial situation are distribution ratios; therefore, the proportion of fixed assets represents the percentage of fixed assets within the total assets of the company, namely the portion of the

assets that are permanently tied by the company. The higher this proportion, the less scope of action remains for the company to modify its activity profile in the future. Table 1 shows the proportion fixed assets concerning the total population and the 4 quartiles classified by net sales revenue for the 4 analysed years. Generally, it can be stated that sports-related organizations have a relatively low ratio of fixed assets, as the ratio is around 35% of the total population. If the data is examined in the scope of the 4 quartiles, the lowest amount of fixed assets is recorded in the 1st quartile (20-23%) and the 2nd quartile (29-30%). Thus, the proportion of invested assets of companies that are under the median does not exceed the ratio concerning the total population. Enterprises that have revenues above the median possess a fixed asset ratio, which exceeds the total mean value. Companies belonging to the 3rd quartile have a decreasing tendency from 44% to 40% in 2017, while companies of the 4th quartile have gradually increasing values (42-46%).

In terms of the relative standard deviation of the indexes, companies belonging to the 1st and 2nd quartiles exceed the values of the total population by approximately 60% for the 1st and 15% by the 2nd quartile, while the values of the 3rd and 4th quartiles are already below them. Relative standard deviation of the 3rd quartile was 82% in 2014, and it increased gradually by 2017, while standard deviation of the 4th quartile was 82% and it showed a declining tendency, reaching 70% by 2017. However, in the case of such high relative standard deviation, each group can be considered inhomogeneous or heterogeneous, and they do not adequately represent the entire population, since it has a high standard deviation and many excess values.

Table 1: Main statistical properties of the fixed asset ratio of the classification carried out by quartiles and net revenue (%)

Group	Statistical index	2014	2015	2016	2017
Total population	Mean	34.10%	35.22%	35.15%	34.19%
	Relative deviation	107.00%	104.00%	103.00%	104.00%
	Skewness	0.6	0.53	0.53	0.57
	Kurtosis	-1.24	-1.33	-1.31	-1.22
1 st quartile	Mean	20.93%	23.00%	23.23%	22.39%
	Relative deviation	170.00%	157.00%	155.00%	156.00%
	Skewness	1.4	1.22	1.21	1.26
	Kurtosis	0.21	-0.24	-0.24	-0.04
2 nd quartile	Mean	29.12%	30.54%	29.51%	27.70%
	Relative deviation	119.00%	116.00%	119.00%	124.00%
	Skewness	0.87	0.8	0.84	0.95
	Kurtosis	-0.73	-0.93	-0.85	-0.63
3 rd quartile	Mean	44.12%	43.09%	42.35%	40.77%
	Relative deviation	82.00%	83.00%	85.00%	88.00%
	Skewness	0.17	0.21	0.25	0.33
	Kurtosis	-1.56	-1.5	-1.5	-1.44
4 th quartile	Mean	42.27%	44.29%	45.57%	45.94%
	Relative deviation	82.00%	78.00%	73.00%	70.00%
	Skewness	0.23	0.12	0.07	0.04
	Kurtosis	-1.44	-1.51	-1.44	-1.38

Source: Own editing

The analysis of skewness indexes suggests that each of the variables shows right skewness, which means that in the coordinate system most of the data is located near the Y-axis. The skewness values gradually decrease from the 1st quartile to the 4th quartile, and are well below 0.5 in the 3rd and 4th quartiles. Examination of kurtosis values suggests that distribution in terms of the total population and the quartiles can be regarded as more flat as compared to normal distribution.

In respect of fixed assets, their distribution and change is mandatory to be disclosed by companies in their notes to the financial statement at least in comparison with the previous business year, in accordance with the provisions of the Accounting Act. Additionally, the assets analysis of intangible assets and tangible assets needs to be presented as well: initial value, increase, decrease and closing values. In the case of invested financial assets, their book value and actual value have to be disclosed.

Following the analysis of the proportions of fixed assets, it was also considered important to examine the proportion of assets that serve the purposes of the company for less than one year; this is the proportion of current assets. It represents the percentage of current assets within total assets. Table 2 represents the mean value of the current asset ratio of the classification by quartile, carried out based on net sales revenues.

Table 2: Main statistical properties of the current asset ratio of the classification carried out by quartiles and net revenue (%)

Group	Statistical index	2014	2015	2016	2017
Total population	Mean	63.59%	62.36%	62.06%	63.07%
	Relative deviation	58.00%	59.00%	59.00%	58.00%
	Skewness	-0.5	-0.43	-0.42	-0.46
	Kurtosis	-1.35	-1.42	-1.41	-1.35
1 st quartile	Mean	75.94%	74.05%	73.15%	73.61%
	Relative deviation	50.00%	51.00%	52.00%	51.00%
	Skewness	-1.19	-1.06	-1.01	-1.02
	Kurtosis	-0.34	-0.64	-0.73	-0.65
2 nd quartile	Mean	69.13%	67.52%	68.77%	70.58%
	Relative deviation	51.00%	53.00%	51.00%	49.00%
	Skewness	-0.79	-0.71	-0.77	-0.86
	Kurtosis	-0.89	-1.07	-0.97	-0.8
3 rd quartile	Mean	54.93%	55.62%	56.08%	57.51%
	Relative deviation	66.00%	64.00%	64.00%	62.00%
	Skewness	-0.14	-0.16	-0.21	-0.26
	Kurtosis	-1.56	-1.48	-1.49	-1.46
4 th quartile	Mean	54.33%	52.20%	50.19%	50.54%
	Relative deviation	63.00%	65.00%	65.00%	64.00%
	Skewness	-0.1	0.01	0.11	0.09
	Kurtosis	-1.45	-1.5	-1.4	-1.35

Source: Own editing

Overall, sports companies have a 63% current asset ratio with regard to the total population. Based on the classification by quartiles, the 1st quartile has the highest current asset ratio (73%), followed by the companies of the 2nd quartile with a mean value of 70%. Values of the 3rd and 4th quartiles are below the total population,

current asset ratio of the 3rd quartile increased from 55% to 58%, while the in the case of the 4th quartile it decreased from 54% to 50%. In summary, it can be stated that half of the 1747 companies surveyed represent a 63% current asset ratio, while the other half represent less.

Relative standard deviation of the indexes had nearly identical values for both the total population and the 4 quartiles; they are approximately 60%. The lowest values were reached in terms of the companies belonging to the 1st and 2nd quartiles, but even these group cannot be considered homogenous.

Analysis of skewness indexes shows that all of the variables are negative so there is a left skewness, which means that in a coordinate system most of the data are not located close to the Y-axis. Skewness indexes are gradually decreasing from the 1st quartile to the 4th quartile; skewness of the 4th quartile is approximately -0.1.

Examination of kurtosis values suggests that distribution in terms of the total population and the quartiles can be regarded as more flat as compared to normal distribution.

In relation to current assets, companies in their notes to the financial statements are required to present their changes as compared to the previous business year and their distribution as compared to total assets. Additionally, the Accounting Act also requires the presentation of the breakdown, distribution and changes of current assets and significant changes associated with them, such as recognized impairment losses.

Table 3 shows the findings of the examination of the final main group on the asset side (accruals). The notes to the financial statement has to represent the amounts of accruals.

Table 3: Main statistical properties of the accruals ratio of the classification carried out by quartiles and net revenue (%)

Group	Statistical index	2014	2015	2016	2017
Total population	Mean	1.62%	1.62%	1.98%	1.99%
	Relative deviation	473.00%	450.00%	403.00%	406.00%
	Skewness	7.5	7.41	6.32	6.4
	Kurtosis	65.49	65.36	47.5	48.73
1 st quartile	Mean	0.61%	0.43%	0.87%	1.49%
	Relative deviation	934.00%	1024.00%	740.00%	567.00%
	Skewness	12.17	16.86	10.49	7.45
	Kurtosis	159.56	314.7	121.02	61.79
2 nd quartile	Mean	1.52%	1.49%	1.49%	1.49%
	Relative deviation	543.00%	536.00%	437.00%	466.00%
	Skewness	8.2	7.8	5.58	5.75
	Kurtosis	76.65	70.22	33.9	34.59
3 rd quartile	Mean	0.95%	1.28%	1.34%	1.49%
	Relative deviation	492.00%	499.00%	393.00%	422.00%
	Skewness	7.83	7.99	5.92	7.22
	Kurtosis	70.58	75.19	42.45	62.39
4 th quartile	Mean	3.41%	3.29%	4.24%	3.52%
	Relative deviation	306.00%	281.00%	277.00%	286.00%
	Skewness	4.87	4.82	4.41	5.17
	Kurtosis	26.95	27.53	21.85	32.85

Source: Own editing

Similar to the previous sections, distribution of accruals can also be determined by a distribution ratio, namely the ratio of accruals and total assets. In general, the proportion of accruals as compared to fixed assets and current assets is considered negligible as illustrated in Figure 3. The average percentage of accruals of the total population is approximately 2%. 75% of the total population is below this amount in terms of the proportion accruals, while the remaining 25% is above that (3.2-4.2%). Relative standard deviation of the indexes includes very high values, ranging from 300% to 1000%, thus it does not represent the population very well. The reason for this might be the relatively large number of companies that do not have any accruals at all, while there are companies that have millions HUF worth of accruals.

Analysis of the skewness indexes, suggests that all of the variables are positive, they show right skewness, which means that in the coordinate system most of the data is located near the Y-axis. Skewness values gradually decrease from the 1st quartile to the 4th quartile. Examination of kurtosis values suggests that distribution in terms of the total population and the quartiles can be regarded as more peaky as compared to normal distribution.

5. In Conclusion

The primary research objective of present study was to analyse the financial situation of sports-related companies and to present their main asset structure indexes. Three indexes were presented: the ratio of fixed assets, current assets and accruals to the total population and their quartile breakdown for the business years 2014-2017. The survey included mapping of the correlation of the indexes and assets with the notes to the financial statement, namely the extent of their conformity with the mandatory disclosures stipulated by the Accounting Act. The database of the study was based on companies that are engaged in sports activities as their primary business according to the TEÁOR (NACE) 931. Based on a classification by 2014 revenues, it can be stated that the average value of net sales revenue increased from 2014 to 2017 for each quartile, and one quarter of the involved sports companies produce more than 90% of the total sales revenue, while three-quarters produce only 10%. In terms of the ratio of fixed assets, their mean value is around 35%, while the mean ratio of current assets is 63%. The mean value of accruals is approximately 2%. It is suggested to disclose these indexes, their major changes and underlying content in the notes to the financial statement in order for them to facilitate the decisions of external actors.

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RANKING ECONOMIES BY CORRUPTION AND TECHNOLOGY TRANSFER ON FOREIGN DIRECT INVESTMENT BASIS

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Abstract: *The paper aims, for 2008-2018, a case study regarding the ranking of the European Union countries (Eastern Europe) by two indicators: corruption in the public sector and intensity of the technology transfer associated to the Foreign Direct Investment (FDI). We use in our research the quantitative analysis method. As data panel, we have the values of corruption and technology transfer intensity delivered by Transparency International, Corruption Perception Index, and World Economic Forum, Global Competitiveness Reports. The paper begins with the definition of the corruption and is followed by the presentation of certain elements used inside the methodology of the index used to measure it. The characterization of the Eastern European economies through the Corruption Perception Index is doubled by the exposure of the values associated with the intensity of the technology transfer related to Foreign Direct Investments. For the last item, the paper also presents the set of elements necessary to attract it and some correspondent public policies, created and implemented by the public sector authorities.*

Keywords: *corruption; public; foreign direct investment; technology.*

JEL Classification: *H11; I31; H83.*

1. Generally Introduction or Background

The characterization of an economy requires its examination on two levels which take it the form of two distinct sectors, public and private. Generating public services essential for the society's members (education, health, defense, public order etc.), the public sector is governed by a particular form of monopoly, resulted from no competition between the state institutions which provides these services. At the opposite pole, the private sector is the place of competition, due to the existent alternatives regarding the goods and services provided to the final consumer. Governed by the need to make profit as a result of the activity carried out, the private sector is guided by the principles of efficiency. Looked as the other side of the same coin represented by the society they serve, appears the same concern for efficiencing the public sector, according to Ackerman et al. (2016). There are, however, a number of impediments, one of which being represented by the corruption level that we want to quantify. For countries ranking, we also consider the intensity of the technology transfer on Foreign Direct Investments (FDI) basis.

2. Corruption in the public sector

2.1. General framework for defining corruption

In general, the assessment of how a country is conducted is mostly done by reference to the value of GDP per capita, even if a nation's standard of living also depends on a number of other factors (the uneven distribution of income at the population level, the quality of the environment, the way of spending leisure time, etc.). As a result, the well-being of a nation can not be reduced to GDP and productivity alone, because its citizens face different political, social and cultural dimensions of their daily existence. As a cause of ensuring this well-being, Aevoo et al. (2018) said that good governance is absolutely necessary. That must be characterized by appropriate public policies, coupled with the existence of effective state institutions to implement them, especially in terms of attracting capital. Regardless of the type of economy that characterizes a country (developed, frontier or emerging) it suffers, to a greater or lesser extent, the state intervention, materialized in the objectives that government has set itself to achieve and quantified, through indicators associated with the governing power channeled to the following directions: *informing* (of various stakeholders, including the public, on the state of public finances and on the performance of government work); *assistance* (granted to the public or members of the society, for this one to opt for one action or another knowingly and to understand the impact that his/her actions have on public money); *the ability of the public to appreciate the performance of a government and its institutions*. The cumulation of these three directions will have the final effect of guiding society in the process of evaluating and redefining tasks to be met by the public sector, through its institutions, in order to strengthen democracy and national well-being. Of course, achieving this goal only through excessive public regulation, it is not necessarily an effective intervention tool because, on the one hand, has the effect of increasing workload in the informal sector (development, implementation and follow-up of the implementation) and on the other hand, induces according to Werner (2018) a permanent pressure on the citizen, who perceives the situation as a limitation of his freedoms. Simultaneously, at the level of regulatory authorities it can, and is usually reached to the situation of their corruption by potential "economic players". The latter are tending to "plunge" the legal framework, excessively cumbersome and restrictive, in the direction of favoring their own interests, to the detriment of the general interest. But how can someone define and evaluate the level of corruption in a state, given that this is a sensitive phenomenon to quantify and difficult to fight, ask themselves Shacklock et al. (2016)? This question exists because the analysis of the economic literature in the field, as Bardhan (1997) said, leads to the conclusion that we are confronted with the lack of a unanimous opinion about what the corruption means. That fact generates several questions and makes non-operational anti-corruption strategies. In many cases, corruption and illicit are seen as similar terms so we could conclude that a corrupt behavior is always the one that violates the lawfulness. We must, however, be mindful of this absolutism, given that not all illegal behaviors denote corruption, as not all corrupt behaviors are illegal (non-observance of the rules of movement by citizens does not denote corruption, but either ignorance or indifference; the little favors we make to relatives or friends, in the sense of serving them preferentially in exchange for little attention, denotes a corrupt but not necessarily an illegal behavior). Linked to corruption in the public

sector, Gardiner (2017) experience that the phenomenon may occur when to the taxpayers, which roughly can be seen as sources of public budget revenues (through the taxes they pay), are provided unsatisfactory public services, when some are preferentially served for a bonus, or when bribe is demanded by the civil servants. According to Karklins (2016), this state of affairs implies the combining of civil servants action (as executors of state institutions), of individuals, companies, industries and public officials, a motive for which we cannot exclude individuals and private businesses from defining corruption in the public sector. Starting from the idea of involvement of public officials in the corruption phenomenon, Newell (2018) concludes that any definition of it includes the political aspect expressed by the existence of an executive who, irrespective of the level at which they are located (central or local), acquires the attribute of being "for sale". The idea is circumscribed to the definition that the World Bank associates with corruption and where the phenomenon is perceived as "public power exerted in return for a gain", with its small and great valences, that can eventually reach till the state is captured by private interests. Summarizing, we can say that the most restrictive definition of corruption is that of government abuse, related to its monopoly on public services.

2.2. Determinants of Corruption in the Public Sector

Transparency International (TI), a world leader in the fight against corruption, defines this notion as "abuse of the invested power, for a private or own gain that affects anyone whose life, means of livelihood or happiness depend on the integrity of the persons invested with authority". An approach of corruption, related to the typology of causes which are defining the phenomenon, is presented in Figure 1.

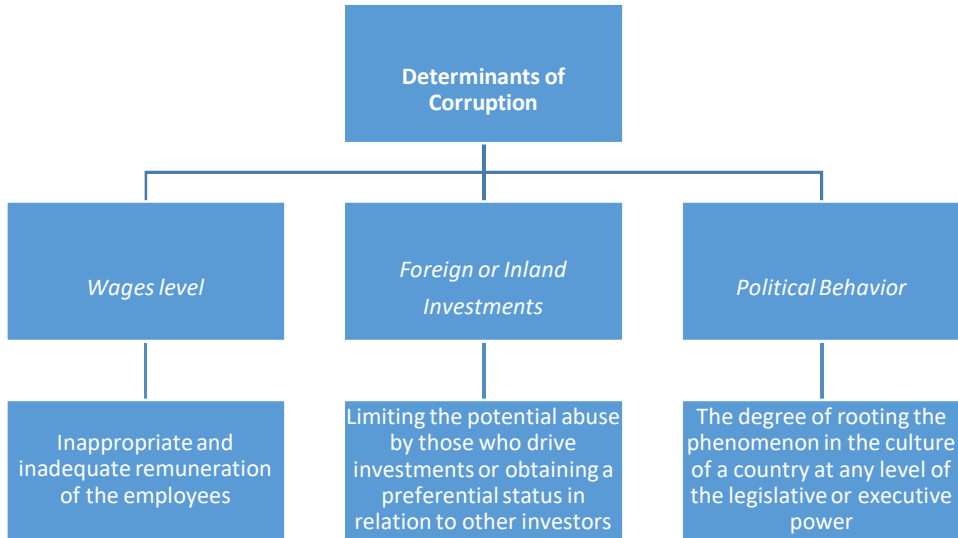


Figure 1: Determinants of corruption

Delia Ferreira Rubio, president of Transparency International, says that corruption is far more likely to flourish where democracy is weak and, as we have seen in many countries, where undemocratic and populist politicians can use it to their advantage. In respect to these ways of defining corruption, Eicher (2016) look more closely at

the abuse of power than to those who are corrupt. According to Figure 1, the inappropriate and inadequate remuneration of the employees in general, of the civil servants in particular, against the backdrop of some economies where the cost of living usually exceeds the monthly wage is seen as a contributing factor to corruption, at least at lower levels, if not within the whole system. This leads to an informal increase in the prices of public services if we take into account the amounts that the taxpayer has to pay as a bribe, against the background of corrupt civil servants, less concerned with morality and more of an extra gain for rising their incomes. In the investment plan, the channeling of an individual or collective energy towards identifying ways to deceive the system with the aim of gaining advantages or facilities, without often recognizing their membership to the system, can and usually has the effect of lowering productive effort at the level of the nation. In conclusion, the corrupt political behavior is characteristic of weak state institutions, where rules may be ambiguous, leaders are not accountable for their actions, and where the bribe, nepotism, or other disagreeable behaviors associated with corruption appears.

2.3. The Corruption Perception Index (CPI) used to Assess the Magnitude, Dispersion, and Dynamics of the Phenomenon in the Public Sector

The challenge of defining the corruption phenomenon is followed by the need to evaluate it, by calling on the corruption perception composite index (CPI) provided by Transparency International (TI). An international qualified body in the fight against corruption, TI conducts empirical research on the phenomenon, by combining qualitative and quantitative approaches, using macroeconomic indicators, analyzes made by experts and perceptual studies. From a descriptive point of view, the corruption perception index is an indicator that classifies countries in relation to the level of corruption in the public/state sector, based on corruption data provided by a variety of independent renowned institutions in that area. Regarding the number of economies studied between 2005 and 2018, the CPI methodology classified a number of countries from 159 to 183. The CPI used between 12 to 17 data sources and studies, from one significant number of independent institutions (Economist Intelligence Unit Country Risk Assessment, Global Insight Country Risk Ratings, World Competitiveness Year Book, Transparency International Bribe Payers Survey, World Bank Country Performance and Institutional Assessment, World Economic Forum Executive Opinion Survey (EOS), World Justice Project Rule of Law Index etc.).

Although any one of the citizens of a state is aware of the existence of corruption and decides on the phenomenon by using attributes as "generalized" or "high", its quantification means making "art", given that the necessary data can not be obtained simply by observing the economic environment in general, the public sector in particular. And we say this because corrupt behavior, irrespective of its nature, criminal or illicit, is often hidden from view. For our purposes (ranking economies inside the European Union area), the values of the Transparency International Index used to assess corruption are presented in Table 1.

According to Table 1, the CPI values show the highest level of corruption for Bulgaria, with an average of 3.95 (the minimum value for the analysed economies) followed by Romania (a 4.25 average). The cleanest economy is on Slovenia, with an average index of 6.13 out of 10.

Table 1: Perception Corruption Index for European Union (Eastern Europe)

Yearly values											
Country	A	B	C	D	E	F	G	H	I	J	K
Bulgaria	3,6	3,8	3,6	3,3	4,1	4,1	4,3	4,1	4,1	4,3	4,2
Croatia	4,4	4,1	4,1	4,0	4,6	4,8	4,8	5,1	4,9	4,9	4,8
Czech Republic	5,2	4,9	4,6	4,4	4,9	4,8	5,1	5,6	5,5	5,7	5,9
Latvia	5,0	4,5	4,3	4,2	4,9	5,3	5,5	5,6	5,7	5,8	5,8
Lithuania	4,6	4,9	5,0	4,8	5,4	5,7	5,8	5,9	5,9	5,9	5,9
Poland	4,6	5,0	5,3	5,5	5,8	6,0	6,1	6,3	6,2	6,0	6,0
Romania	3,8	3,8	3,7	3,6	4,4	4,3	4,3	4,6	4,8	4,8	4,7
Slovenia	6,7	6,6	6,4	5,9	6,1	5,7	5,8	6,0	6,1	6,1	6,0
Hungary	5,1	5,1	4,7	4,6	5,5	5,4	5,4	5,1	4,8	4,5	4,6
Perception Corruption Index - Average (2008-2018)											
Bg	Cr	Czh	Ltv	Lit	Pol	Ro	Slv	Hun			
3,95	4,59	5,15	5,15	5,44	5,71	4,25	6,13	4,98			
Values associated to the index: „0” – very corrupt economy; „10” – very „clean” economy, practically without corruption; according to the CPI methodology, a country's progress in corruption level requires a change of at least 0.3 points of the associated score.											

Legend: Bg – Bulgaria; Cr – Croatia; Czh – Czech Republic; Ltv – Latvia; Lit – Lithuania; Pol – Poland; Ro – Romania; Slv – Slovenia; Hun – Hungary;
A – 2008; B – 2009; C – 2010; D – 2011; E – 2012; F – 2013; G – 2014; H – 2015; I – 2016; J – 2017; K – 2018;

Source: Transparency International, Corruption perception Index 2008-2018, available at <https://www.transparency.org/>

3. Corruption in the Public Sector: Background for the Intensity of Technology Transfer Related to Foreign Direct Investments

The mobility of production factors (labor and capital) has grown significantly in the context of globalization, any kind of foreign or indigenous investment being a dominant factor in economic development. In relation to foreign direct investment (FDI), Aevoae et al. (2018) consider that these are conditioned on the adoption, through state institutions, of stable, predictable and with the lowest risk factor public policies, in respect to attracting investors. Talking about public policies, in our paper we consider the following public policies types: *minimal policy* - refers to the passive level, ie to provide to an investor the ability to undertake certain economic activities in a particular country; *promotion policy* - marketing activities, made by a country to be known as the location of investment projects; *attraction policy* - contain, in addition to the promotion part, an active part of the bargaining, ie the part of the incentives used for the investor to establish its location in that country; *maintenance policy* - active investment maintenance measures (post-investment services and specialized personnel); *composed policy* - combinations of the previous ones. After Bințințan (2005), who was preoccupied in his research by the involvement of the public sector

in creating the economic and legal framework necessary for the FDI attracting, we present Figure 2.

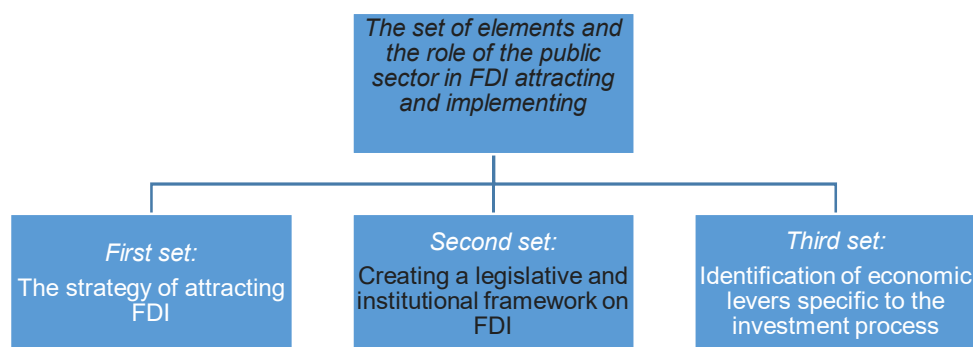


Figure 2: The set of elements involved in attracting FDI and the role of the public sector in their ensuring and implementation

Source: own processing after Bonciu, F. *Politici și instrumente de atragere a investițiilor străine directe*. București: Albatros, 2001.

The involvement of the public sector in each of the three sets of elements from Figure 2 is argued as follows: *the first set of elements* assumes the formulation of a strategy to attract foreign direct investment and specify their role for the economy (economic growth in areas such as research, production, distribution, labour market, etc.); requiring an adequate legal framework, these elements are related to the public power through a series of specialized institutions; *for the second set of elements* it is necessary to establish the conditions that govern the activity of the foreign investor, as well as the establishment of the institutions with which he will be in contact and which will implement such investments (is corresponding to the legislative and executive power of a country, no matter what country is); *for the third set of elements*, facilities and restrictions are needed on the use of direct investment flows, in respect to achieve the objectives set through the economic policy of a country (involve legislative and executive powers - first to create a legal framework for these and then, to implementing the legal norms. Regarding the FDI and related to public policies, the technology transfer was associated by Osano et al (2016) with the economic growth. As we know, the investment flows generate transfer of technology. We present, in Table 2, the intensity of the technology transfer on FDI basis, for the analyzed economies.

Considering the role of the public sector in creating the legal framework for attracting and implementing FDI, and implicitly, for the technology transfer associated to these, we ask ourselves if corruption in public sector influences the levels of investments and of the technology transfer. For that purpose, in Figure 3 we presented a comparative situation between the two indicators: the intensity of technology transfer on FDI

basis, as a driver of economic growth (through productivity gains), and the corruption in the public sector.

Table 2: Intensity of technology transfer on Foreign Direct Investment basis – European Union (Eastern Europe)

European Union (Eastern Europe)										
Yearly values										
Country	A	B	C	D	E	F	G	H	I	J
Bulgaria	4,1	4,2	4,2	4,1	4,1	4,1	4,3	4,4	4,7	4,7
Croatia	4,1	4,1	4,0	4,2	4,1	4,0	4,0	3,8	3,7	3,7
Czech Republic	5,5	5,4	5,3	5,3	5,3	5,1	5,0	5,0	5,1	5,0
Latvia	4,8	4,5	4,3	4,3	4,3	4,5	4,8	4,8	4,4	4,2
Lithuania	4,7	4,6	4,8	5,0	5,1	5,3	5,5	5,3	5,1	4,9
Poland	4,9	5,1	5,0	5,0	4,8	4,6	4,6	4,5	4,6	4,9
Romania	5,0	5,0	4,7	4,5	4,3	4,4	4,8	4,7	4,4	4,1
Slovenia	6,0	5,9	5,7	5,5	5,5	5,1	5,1	5,3	5,3	5,2
Hungary	5,5	5,2	5,2	5,4	5,4	5,3	5,1	4,9	4,4	4,7
Intensity of technology transfer on FDI basis – Average (2008-2018)										
Bg	Cr	Czh	Ltv	Lit	Pol	Ro	Slv	Hun		
4,29	3,97	5,20	4,49	5,03	4,80	4,59	5,46	5,11		
Values associated to the indicator: “1” – FDI brings little new technology; 7 – FDI is an important source of new technology										

Source: World Economic Forum, Global Competitiveness Reports 2008-2018, <https://www.weforum.org/reports>

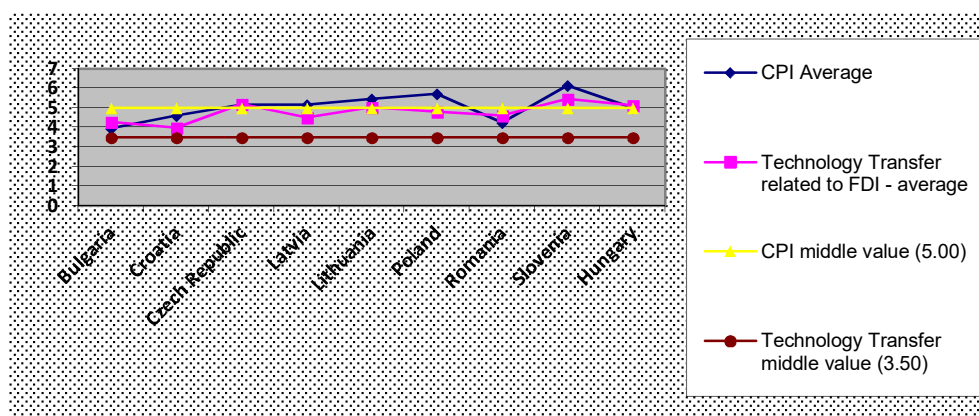


Figure 3: Intensity of technology transfer on FDI basis

Source: own processing according to Table 2

The data interpretation in Figure 3 shows that with regard to the intensity of the technology transfer on the FDI basis, the highest average value of the intensity is found for Slovenia and the smallest average for the technology transfer intensity, on FDI basis, corresponds to Bulgaria. As consequence of the interpretation of the perception corruption index and according to the data in Figure 3, we can observe

that the largest average value of the CPI indicator corresponds to the cleanest economy (Slovenia) and the smallest average value of the indicator corresponds to Bulgaria, the most corrupt economy.

3. Ranking economies by corruption and technology transfer intensity on FDI basis

To rank the analyzed economies in terms of public corruption and, respectively, in terms of the intensity of the technology transfer on FDI basis, we consider Figure 4.



Figure 4: Ranking economies by corruption and intensity of the technology transfer on FDI basis

Legend: Corruption Perception Index: rank 1 – maximum level of corruption (most corrupted economy); rank 8 – minimum level of corruption (most clean economy); Technology Transfer on FDI basis: rank 1 – maximum level for the intensity of the technology transfer; rank 9 – minimum level for the intensity of the technology transfer;

Source: own processing according to Table 1 and Table 2

The evolution of the data in Figure 4 shows that in most of the cases exists a direct correlation between the index of corruption associated to an economy and the intensity of the technology transfer on FDI basis. Thus, a big CPI value means a clean economy which corresponds to a more intense technology transfer. A small

CPI value means a corrupt economy which corresponds to a poor transfer of technology.

4. In Conclusion

As a first conclusion, we can say that corruption, regardless of level, is a phenomenon that really matters. Although the phenomenon analyzed does not make direct victims, its implications produce unwanted effects on a large scale, such as: inhibiting or reducing the rate of economic growth and investment; the limitation of the economic development and welfare by reducing capital inflows; increasing infant mortality and reducing literacy, by incorrectly targeting of public funds; the shape of the countries economic policies; the influence exerted on governments about how to spend public money, by redefining the structure of government spending, to the detriment of future economic growth. Therefore, public corruption impedes economic development and may affect national security by distorting markets and competition, by spreading cynicism among citizens, undermining the rule of law, deteriorating the legitimacy of the government and corroborating the integrity of the private sector. Referring to the intensity of the technology transfer related to FDI, according to the analyzed data we can say that there is usually a direct correlation between this indicator and the corruption level in the public sector. As the economy is more corrupted (the index of corruption is smaller, therefore the economy is ranked first), the level of technology transfer is more reduced, due to the low level of FDI. We can also observe that in a cleaner economy (bigger values for the corruption index, therefore the economy is on the last places in the ranking of corruption), the intensity of technology transfer is higher.

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GOVERNMENT ACCOUNTING AND ACCOUNTING HARMONIZATION IN MEXICO

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Abstract: *The changes generated by accounting harmonization and the requirements to be met by Government accounting systems agree that governments, centralized, decentralized and parastatal institutions will realize their actions and Resources exercised, in a clear and precise way. This determines the importance of a truthful financial information that has a systematization and valid records of what happens in the management of the public budget, so that the governments and relevant authorities can develop policies Public in favor of society. The research work described the process of accounting harmonization in Mexico, its regulations and important concepts. Also established the comparability of the basic postulates of government accounting issued by the National Council of Accounting Harmonization (CONAC) and the basic postulates issued by the Mexican Council for Research and Development of Financial Information Standards (CINIF). The type of research was theoretical, since the objective of this research is to realize the comparability of the basic postulates emitted by the CINIF (2017) and the CONAC (2008b). The scope is descriptive, as the phenomenon was described through literature and documentation that was addressed during the process of making this manuscript, the research is qualitative, as it does not contain quantifiable data but aspects observed in the analyzed documents and is also non-experimental. The results show a high similarity to the content of the postulates of government accounting and financial accounting, and thus the understanding of economic events in either of the two branches of accounting will be feasible, except differences mentioned in the work. In general, the postulates by the CONAC define the records that make up the governmental accounting systems based on legal provisions and regulations on the economic impact that these records represent, while the CINIF in its postulates assumes that the accounting records should be based on the economic reality of the entity on the legal basis.*

Keywords: *Government; accounting; accounting harmonization.*

JEL Classification: *M48; M40; M41.*

1. Introduction

The Mexican Institute of Public Accountants (IMCP), mentioned on its page, with respect to the background of the harmonization accounting in the government sector, the following:

"The effort to harmonize government accounting in Mexico began in the mid-1990s within the Standing Committee of Fiscal officials. This established working groups

formed by the Ministry of Finance and Public Credit (SHCP), the Institute for the Development of public finances (INDETEC) and the federal entities represented by their respective Secretaries of finance State. The focus of the working groups was on budgetary and accounting, concluding, years later, in the proposal presented at the first National Convention finance in 2004 " (Instituto Mexicano de Contadores Públicos [IMCP], 2018).

Larios (2009) explained that the groups that intervened continuously in the work of the accounting harmonization are:

1. Governmental accounting Group. Coordinated by the Mexican Institute of Public Accountants (IMCP). This group has under its mandate the central theme of the responsibilities of the Committee, consisting of analyzing and proposing all those projects that allow the accounting and budgetary harmonization, and the formulation of the public accounts, among others.
2. Systems Group. Coordinated by the National Association of Higher Control and government controls, A.C. (ASOFIS), through the superior audit of the state of Coahuila. The substantive function of this group is to go and rely on the technology of Computer science, a tool now irreplaceable for the operation of accounting, in order to develop the accounting systems or make the necessary adjustments to the existing ones, In order to achieve the desired harmonization.
3. Results-based budget group. Coordinated by the Government of the state of Nuevo León. His work will tend to establish a link between the progress of the harmonization of accounting process with the adoption of the budget technique known as a results-based estimate, which is a requirement of LGCG.
4. Legal Group. Coordinated by the Government of the state of Jalisco, for its part, this group is oriented to the analysis of all the rules that are involved in government accounting and its harmonization process.
5. Training Group. Coordinated by the Institute for the Development of public finances (INDETEC), finally, this group aims to generalize or disseminate knowledge of the bases in which government accounting and harmonization will be supported.

Plata (2016) mentions that in the first Finance Convention, proposals for improvement were addressed to various elements of government accounting, among which they emphasized the accounting and budgetary harmonization, the modernization of computer systems and the Performance measurement.

Similarly, the principles governing accounting were established in the Convention, with the following:

- A. integrity.
- B. Congruence.
- C. Equity
- D. graduality.
- E. subsidiarity.

2. History of Accounting Harmonization in Mexico

García (2011) in terms of accounting harmonization, exposes the following:

"A first normative effort to promote harmonization is given in the adoption of the federal Budget and Finance Liability Act (LFPRH), which entered into force on April 1, 2006, where it is established that the administration of federal public resources is

It will be based on criteria of legality, honesty, efficiency, efficiency, economy, rationality, austerity, control, gender equity, accountability and transparency" (p.40). With the preceding paragraph it was confirmed that one of the first instruments established in the applicable legal standard, so that government accounting is homogeneous in the three levels of government in Mexico, is the Federal Law on budget and responsibility Finance, being the result of the work of the parliamentary groups coordinated by the Executive to be able to be more efficient in the use of the public budget.

The harmonization accounting I mean a series of changes to the three levels of government, especially to the municipalities, that presented challenges that exposes in its page the IMCP (2018a) and which are:

- To work in the process of "management of the change" that the adoption of this new one and requires. It takes a commitment from the staff to make the adoption successful and timely.
- Analyze the financial information systems currently in the business. It may be necessary to adapt them based on the possible changes that generate the new processes and requirements of financial reporting.
- Joint work in the States and municipalities for the identification of the multiple conceptual, normative and technical differences that are registered in the different accounting systems and accountability.

Another important aspect of the account is the government accounting systems, which in order to comply with what the LGCG demanded, presented a series of requirements that Guerrero (2011) presents to us:

- Account Plan (account list).
- Harmonized budget classifiers: by income items, for the purpose of expenditure, by type of expenditure, by function, by program, by source of financing.
- Accounting Moments: income, expenses, financing
- Conversion matrix
- General accounting rules
- Main books and auxiliary records.

The changes generated by accounting harmonization and the requirements to be met by Government accounting systems agree that governments, centralized, decentralized and parastatal institutions will realize their actions and Resources exercised, in a clear and precise way.

This determines the importance of a truthful financial information that has a systematization and valid records of what happens in the management of the public budget, so that the governments and relevant authorities can develop policies Public in favor of society.

In accordance with the foregoing Gámez, Joya and Ortiz (2015) established the following:

"The General Law of Government Accounting (LGCG) is approved in response to the need to achieve in Mexico the harmonization of accounting of the three orders of government, which would not be achieved but through legal system of the highest level. This new law would allow the Federation, States, municipalities and other entities to generate more timely information that would help public servants to better make decisions about public finances, and would respond to the need to have Information that not only complies with the legal requirements of transparency and accountability, but also allows to overcome the conceptual, normative and technical

diversity prevailing in the financial and budgetary information of the entities Government" (p. 2).

Accounting Harmonization from the Perspective of the General Law of Government Accounting

The accounting harmonization in the public authorities in Mexico is based on the General Law of governmental accounting, since this is the dictates the way in which the registries in the accounting systems of the public entities are made for the correct recognition of the transactions, internal transformations and other economic events that are presented in the entity.

To this end, García (2011) explains that the Chamber of Deputies reforms article 73 of the Political Constitution of the United Mexican States, so it is written as follows:

"Congress has the power: to issue government accounting laws that govern public accounting and the homogeneous presentation of financial, income and expenditure information, as well as patrimonial, for the Federation, the States, the Municipalities, the Federal district and the political-administrative bodies of their territorial demarcations, in order to ensure their harmonization at the national level " (p.40).

Homogenization and comparability become cornerstones of accounting harmonization because the various instances that carry out economic events affecting the public budget should give similar accounting treatment to determine whether it is optimal or The exercise of expenditure and to generate timely corrective and preventive actions.

A sample of this is what the National Council for Accounting Harmonization (Consejo Nacional de Armonización Contable, 2008a) raises, from here until the end of the document called CONAC, in its Conceptual framework document of Government accounting stating that:

"The Conceptual framework of Government Accounting (MCCG), is the basis of the governmental accounting System (SCG) for public entities, becoming the theoretical reference that defines, delimits, interrelates and integrates logically-deductive their Objectives and fundamentals. In addition, it establishes the necessary criteria for the development of standards, valuation, accounting, procurement and presentation of accounting and budgetary information, in a clear, timely, reliable and comparable way, to meet the needs of the Users" (p.2).

The purposes of the Conceptual framework of Government accounting also reaffirm the part of transparency and accountability in the qualitative aspects that the financial information of the entities should have.

The CONAC (2008) lists the purposes of the conceptual framework of government accounting which are:

1. Establish the essential attributes to develop government accounting standards.
2. To reference the application of the registry in the operations and transactions susceptible to be valued and quantified.
3. To provide the essential concepts that govern government accounting, identifying in a precise way the bases that support it.

4. Harmonize the generation and presentation of financial information, which is necessary for:

- A. Accountability in a truthful and timely manner.
- B. Interpreting and evaluating the behavior of public management. or sustain decision making.
- C. To support the tasks of control.

Finally, the CONAC (2008) establishes that the extra regulation to the CONCEPTUAL framework of governmental accounting and the regulation that this is derived are:

- The regulations issued by the administrative units or bodies competent in the field of Government accounting.
- International Public Sector Accounting Standards (NICSP) issued by the Board of International Public Sector Accounting standards (International Public Sector Accounting Standards Board, International Federation accounting Committee).
- The financial information standards of the Mexican Council for the investigation and development of financial Information Standards (CINIF).

This paragraph notes the relationship of financial reporting standards with the Conceptual framework of Government accounting, noting that Mfrs are extra and in measure are also guidelines for the Act of Review managers and Accounting of economic and financial events.

3. Materials and Methods

The type of research was theoretical, since the objective of this research is to realize the comparability of the basic postulates emitted by the CINIF (2017) and the CONAC (2008b). The scope is descriptive, as the phenomenon was described through literature and documentation that was addressed during the process of making this manuscript. The research is qualitative, as it does not contain quantifiable data but aspects observed in the analyzed documents. The research is also non-experimental, because only the analysis of the subject of study was applied by the articles and referenced material.

The materials used for the development of the introduction, which contains the theoretical framework of the research, was the use of a computer to carry out the web search of documents that would provide the state of the Art of Government accounting and the Accounting harmonization, as well as the consultation of printed materials, such as financial reporting standards.

For the analysis of the basic postulates of government accounting and financial accounting was used the document issued by the CINIF (2017) which is entitled Financial Reporting standards and the document issued by the CONAC (2008b) which carries title basic postulates of government accounting, and by means of table 1, a comparison was made of the concepts and scopes contained in each postulate and with this it was formulated the findings found in the results section.

Table 1: Basic postulates of government accounting and financial accounting.

CONAC		CINIF	
Postulate	Definition	Postulate	Definition
Economic substance	It is the accounting recognition of transactions, internal transformations and other events, which economically affect the public entity and delimit the operation of the government accounting system (SCG).	Economic substance	The reflection of the economic substance must prevail in the accounting recognition in order to incorporate the effects derived from the transactions, internal transformations and other events, which economically affect an entity, according to its reality Economic and not only in the attention to its legal form, when one and the other do not coincide.
Economic entity	The public entity is established by a specific normative framework, which determines its objectives, its scope of action and its limitations; With powers to assume rights and contract obligations.	Economic entity	It is that identifiable unit that carries out economic activities, constituted by combinations of human, material and financial resources (integrated set of economic activities and resources), conducted and administered by a single control centre That makes decisions aimed at fulfilling the specific purposes for which it was created.
Permanent existence	The activity of the public entity is established for an indefinite period, unless the legal provision specifies otherwise.	Running business	The economic entity is presumed in permanent existence, within an unlimited time horizon, unless proof to the contrary, so the figures in the accounting information system represent values systematically obtained, based on the NIF
Sufficient revelation	States and financial information must show the financial situation and the results of the public entity broadly and clearly.	Sufficient revelation	It is noted that in NIF A-2 does not appear as a basic postulate, however, it appears in NIF A-4 as a qualitative characteristic of financial information.
Relative importance	Financial information is of relative importance if there is a risk that its omission or erroneous presentation will affect users '	Relative importance	Associated with the qualitative characteristic of relevance in NIF A-4, but is not a postulate.

CONAC		CINIF	
Postulate	Definition	Postulate	Definition
	perception of accountability, auditing and decision-making.		
Registration and budgetary integration	The budgetary information of the public entities is integrated in the accounting in the same terms that are presented in the law of income and in the decree of the expenses budget, according to the economic nature that corresponds to him.	Association of costs and expenses	The costs and expenses of an entity must be identified with the income generated in the same period, regardless of the date on which they are made
Consolidation of financial information	The financial statements of the public entities must present in a consolidated way the financial situation, the results of operation, the cash flow or the changes in the financial situation and the variations to the public treasury, as if it were a single Public entity.	NOT AVAILABLE	NOT AVAILABLE
Accrual accounting	The accounting records of the public entities will be carried out with cumulative basis. The accrued income is the accounting moment that is made when the right to collect taxes, rights, products, exploitations and other income by the public entities exists legally. The expense accrued, is the accounting moment that reflects the recognition of an obligation of payment in favour of third parties for the receipt of conformity of goods, services and public works contracted; As well as the obligations deriving from treaties, laws, decrees, resolutions and definitive sentences.	Accrual accounting	The effects of transactions carried out by an economic entity with other entities, internal transformations and other events, which have affected it economically, must be recognised in its entirety, at the time when occur, regardless of the date they are considered to be made for accounting purposes.
Accounting period	The life of the public entity is divided into uniform periods of a calendar year,	Accounting period	The effects derived from the internal transactions and transformations

CONAC		CINIF	
Postulate	Definition	Postulate	Definition
	for the purpose of periodically knowing the financial situation through the registration of its operations and accountability.		carried out by an entity, as well as other events, which affect it economically, must be identified with a conventionally determined period (accounting period), in order to know in the form The financial situation and the results of the operations of the entity.
Evaluation	All events that affect the public entity economically must be quantified in monetary terms and will be recorded at the historical cost or the most objective economic value registering in national currency.	Evaluation	All events that affect the public entity economically must be quantified in monetary terms and will be recorded at the historical cost or the most objective economic value registering in national currency.
Economic duality	The public entity must recognize in the accounting, the representation of the transactions and some other event that affects its financial situation, its composition by the resources allocated for the achievement of its ends and by its sources, according to the rights and obligations.	Economic duality	The financial structure of an economic entity is constituted by the resources available to them for the achievement of their purposes and by the sources to obtain such resources, whether they are own or foreign.
Consistency	In the presence of similar operations in a public entity, it must correspond to the same accounting treatment, which must remain over time, as long as it does not change the economic essence of the operations	Consistency	In the presence of similar operations in a public entity, it must correspond to the same accounting treatment, which must remain over time, as long as it does not change the economic essence of the operations

Source: Own elaboration with information of CONAC, 2008b and CINIF, 2017

4. Results

The results obtained from the analysis of the relationship of the basic postulates emitted by the CONAC and the CINIF presents the following relation:

- As for the postulate of economic substance, the CONAC emphasizes that economic events affecting the entity delimit the government accounting system, while the CINIF emphasizes that the economic transaction affecting the entity pays attention not only to the laws but rather to the economic reality.
 - As for the postulate of economic entity the CONAC is limited to that the public entity is determined by a specific normative framework and with legal approach whereas the CINIF in the concept of the entity includes the carrying out of economic activities with the pertinent Combination of these resources and their pertinent management.
 - As for the running business postulate the CONAC manages it as a permanent existence and the similarity with the CINIF is in the precision of the existence of the entity for an indefinite time, however, the CONAC specifies that the existence of the entity can be defined by a At legal disposal whereas the CINIF is more open when mentioning that the existence of the entity is presumed unless proof otherwise, that is, it can determine the existence of an entity not only a legal provision but other factors associated with these and that They can be found in economic, political or social settings.
 - Sufficient revelation coincides with the definition, but the CONAC manages it as a basic postulate while the CINIF defines it as a qualitative characteristic of relevance.
 - The relative importance coincides in the definition, however, the CONAC manages it as a basic postulate while the CINIF defines it as a qualitative characteristic of relevance.
 - The postulate of registration and budgetary integration is similar to that of association of costs and expenses, but the CONAC manages that the integration of its accounting is based on legal orders, while the CINIF manages it with the integration of the events occurred in a given period and on the basis of other particular NIF.
 - The basic postulate of consolidation of financial information does not appear as such in the CINIF, but in the description that manages the CONAC refers to the financial statements that the public entity generates. This in the CINIF is detailed in series B with the particular rules related to the basic financial statements with which each entity must count.
 - In the postulate of accrual accounting the CONAC delimits it on the basis of legal guidelines and its recognition when these so determine, whereas the CINIF delimits it with the economic affections of the transactions of an entity, and with the recognition Total of these, independent of their accounting date of completion.
- The accounting period both the CONAC and the CINIF agree that the result of their operations must be demonstrated in a given time, although for the CONAC it is usually one year and aimed at accountability, while the CINIF mentions that the period may Be convinced and does not limit the use of the results presented during the given period.
- The difference in the evaluation postulate is that the CONAC identifies that the operation record must be in two ways, while the CINIF assumes that this record must be in accordance with the attributes of the well-valued. The similarity in this postulate

both by the CONAC and by the CINIF is that the registration must be carried out in national currency and with the most objective economic value.

- Finally, the postulate of economic duality and consistency are similar for both the CONAC and the CINIF, except that the CONAC requires them based on legal obligations and CINIF on the basis of financial regulations.

In general, the postulates by the CONAC define the records that make up the governmental accounting systems based on legal provisions and regulations on the economic impact that these records represent, while the CINIF in its postulates Assumes that the accounting records should be based on the economic reality of the entity on the legal basis.

Thus, there is a high similarity in terms of the content of the postulates of government accounting and financial accounting, and thus the understanding of economic events in either of the two branches of accounting will be feasible, except differences presented earlier.

5. Conclusions

Accounting harmonization has already served 20 years as an issue that the government begins to deal with and 10 years of its first legislation. The main engine is the demands of the society of services that help them to have a better quality of life.

It has had organisms from the INDETEC to what is the CONAC that have been part of the process of improvement in the budgetary management of the country of the hand with the auditing organs of the States.

An important actor in the execution of the expenditure and the determining factor for its correct use is the public official, and to prevent that this breach with its duty is issued in 2006 the Federal Law of Budget and responsibility Finance (LFPRH) where it is detailed The characteristics of the public servant's work and the penalties which merits the non-fulfilment of its work.

In the case of the operativeness of the public servant and the institutions of government it is public in 2009 what is the General law of governmental accounting thus establishing the technical bases that must have the systems of governmental accounting and the Accounting records included in these, providing a solid tool for making optimal decisions for the exercise of the public budget.

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CAN WE TRUST ACCOUNTING RESULT AND CASH-FLOW IN APRECIATING FINANCIAL PERFORMANCE?

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Abstract: *Is profit an indicator that reflects the real performance of the economic entity? Or is it rather a benchmark for uninitiated users who do not know the artificial effects of policies, options and accounting estimates on this sensitive indicator? The vulnerability of the accounting result makes us focus on the objective nature of cash flow, which is a more modern and tangible measure of performance, eliminating the effects of using different accounting treatments for the same transactions. Corroborated, the two coordinates - the accounting result and the cash flow, and more specifically those related to the operating activity - would give a better appreciation of performance. What should we understand when these indicators contradict each other? Is that possible? The case outlined in this paper demonstrates that the answer is yes. But why does this happen and how do we appreciate the performance in this case? The present paper begins by presenting some beliefs that profit is an important indicator of financial performance. These are to be combated by presenting profit margins as an indicator of financial performance, the main or the disadvantage being its subjective character. Subjectivity does not apply to cash-flow, which leads us to say that the cash-flow reflects more objectively and more accurately the financial performance of the economic entity. Further, we will analyze the two indicators in parallel and comparatively, explaining the discrepancy that may arise between them and especially the situation where the profit is positive and cash-flow is negative. Our research is both empirical and theoretical. The results of this research point out to shareholders that profits can be misleading and recommend them to make a minimum simple comparison between profit and cash-flow, between operating profits and cash-flow from operations before they risk making decisions. Increased attention should certainly be given to the situation where there is a discrepancy between the two indicators, because according to some opinions it may even be a sign of the use of creative accounting, and practice has put us, not least, in the face of bankrupt companies with huge profits.*

Keywords: *financial performance; profit; cash flow; operating activity; shareholders; creative accounting.*

JEL Classification: *M41; M42.*

1. Introduction

Performance is the primary objective of economic entities and the benchmark of all interested parties.

But financial performance and profitability are not equivalent terms. Given that we could rely on the unaltered qualities of financial-accounting information, in the good faith of the parties that could influence this indicator, profit could be a measure of

performance. But the techniques of profit manipulation are many and tempting. Therefore, viewed only through the accounting result, the performance presented may be misleading. This is why specialists are trying to redirect their attention to cash flows that are generated by concrete transactions. More accurately, cash flows from operating activities would be even more relevant as it reflects the entity's ability to finance its current business from domestic sources.

In addition, it is recommended to compare them with operating profit, a comparison that helps us to shoot a large alarm signal.

The content of the paper will analyze the weaknesses and strengths of the two indicators and will capture in a practical case the opposite image of their performance and, comparatively, their chaotic evolution.

2. Literature Review

There are many points of view, among the most well-known, that profit is an indicator, if not the "main indicator of measuring the financial performance of the entity" (Chirilă, 2004, Tulvinschi, 2013). Petrescu (2005), Ristea (2013), Stancu, I., Stancu, D. & Oproiu, A. (2013), Achim & Borlea (2012) also view performance through profit and other indicators based on profit.

On the other hand, Feleagă, N. & Malciu, L (2002), Colasse, B. (Tabara, N., 2009), Munteanu & Zuca (2011) find faults for this indicator, stating that the "result may be a convenient one but not necessarily true" and "profit is what the accounting calculates" and it does not accurately reflect the real situation of the entity.

Dinu (2017) and Ivan (2015) redirect users' attention to the cash flow statement. Popa, Kiss & Sziki (2012), Dănescu & Rus (2014), Herțeg (2013), Feleagă (1996) and Girbina & Bunea 2008 find cash flow more objective in appreciating performance.

Achim & Borlea (2012), Ivan (2015) signal the possibility of manipulating figures when there is a large discrepancy between the accounting result and the cash flow. All these ideas will be analyzed analytically in the paper.

3. Research Methodology

The purpose of this paper is to present comparatively the performance seen in terms of profit, respectively from the point of view of cash flow. In this sense, we sought to bring arguments for and against the two approaches - arguments from specialized literature, arguments from an analysis and interpretation of the norms in the field, as well as arguments obtained by the practical approach of a concrete case. The chosen case presents the values of gross profit, operating profit and cash flow related to operation, investment and financing activity for a period of 5 years for an economic entity listed on the regulated market of the Bucharest Stock Exchange. Conclusions are based on comparative analysis and the evolution of these data.

4. The Accounting Result - Indicator for Uninitiated Users?

There are many points of view, among the most well-known, saying that profit is an indicator, if not the "main indicator of measuring the financial performance of the entity" (Chirilă, 2004, Tulvinschi, 2013). Here are some quotations that support this statement:

- “The company's ability to achieve profit” reflects its performance (Petrescu, 2004/2005);
- “Profit is frequently used as a measure of performance”, as advocated by the Conceptual Framework for Financial Reporting, and also by practice;
- Conceptual Standard 1 (paragraph 43) states that “the most important part of financial reporting is the performance information of an entity provided through the comprehensive result and its components”.

We do not contradict these views in the circumstances in which we could rely on the unaltered qualities of the financial-accounting information, on the good faith of the parties that could influence this indicator. A slightly more cautious assertion restricts the universality of the foregoing, emphasizing the terms “as a rule” and “in a narrow sense”: “As a rule, in a narrow sense, performance is defined through profit / loss” (Ristea, 2013). “In a narrow sense” - because a single indicator is not relevant in assessing performance, a number of indicators and information have to be taken into account. But still profit is the one used in calculating many other indicators by which the performance of an entity is assessed, as summarized in the following table.

Table 1. Indicators calculated based on profit

	Indicator	Formula
Absolute values	EBIT Earning Before Interest and Taxes	Gross profit + interest expense
	EBITDA Earning Before Interest, Taxes, Depreciation, Amortization	EBIT + depreciation + amortization
	EVA Economic Value Added	Operating result - Income tax - Cost of invested capital
	CAF Self-financing capacity	Net result for the year + interest expense + depreciation + amortization; EBITDA - Profit tax
Relative values	ROE – Return On Equity	Net result / Equity x 100
	ROA – Return On Assets	Net result / total assets x 100
	EPS – Earning per Share	Net result / number of shares

Source: Own editing

Regarding these indicators, the following explanations are made that also reinforce the fact that the result, on the basis of which they are calculated, is considered a benchmark in the performance appraisal:

- “Since the launch in 1989 by Stern Stewart & Co, EVA (or economic profit, conventionally used term) is the most used indicator (...) for measuring enterprise performance” (Stancu, 2013), “EVA is a measure of the real economic performance of society, serving primarily the interests of managers” (Achim, 2012);
- The EPS indicator has a “significant impact on the share price and, therefore, an important role in substantiating investor decisions” (Achim, 2012);

- “ROI and ROE are the ones expressing an adequate measure of performance” (Stancu, 2013).

However, performance “must not be sought exclusively in the profit and loss account” (Feleagă et al., 2002), because “the outcome may be convenient and not necessarily true” (Munteanu and Zuca, 2011) and “profit is what accounting calculates” and does not accurately reflect the real situation of the entity (Colasse, 2009). How else, on the basis of the same events, the same data, could be achieved different results by applying different accounting policies, different accounting references?

Table 2. Policies and accounting options with effect on the accounting result

Policies and accounting options for fixed assets	<ul style="list-style-type: none"> ▪ Recognition of an asset - valuation at the entrance to the patrimony; ▪ estimation of residual value; ▪ Choosing the amortization method (linear, accelerated, digressive) ▪ estimation of the normal use time; ▪ recognizing a modernization or repair; ▪ revaluation of fixed assets.
Policies and stock options	<ul style="list-style-type: none"> ▪ valuation at the patrimony entry (inclusion or non-inclusion of costs in the acquisition cost); ▪ choosing the method of stock valuation at the exit from the patrimony (at the end of consumption)
Registration of construction contracts	
Borrowing costs for long-term produced assets	
Development Expenses Capitalization Policy	

Source: Own editing

Considering all these influences on the accounting result, we conclude that this indicator is vulnerable and sensitive and does not objectively reflect the performance of the economic entity. Profitability is therefore a (more or less) necessary condition, but “not enough to avoid financial difficulties” (Dinu, 2011). Therefore, “the attention of users of financial statements must be redirected, in the sense that they do not have to give excessive weight to the accounting result” (Ivan, 2015).

Companies, after all, go bankrupt because they can not pay their debts, not because they are unprofitable. It is obvious that liquidity is important. Even so, “many investors usually ignore it. How? Looking only at the company's profit and loss account and not the cash flow statement” (Moreland, 1995). Or “the cash flow analysis has become an imperative need to complete the analysis of an entity's financial condition because it has always been proven that the existence of an accounting profit is also a guarantee for ensuring the ability to pay and avoiding the risk of bankruptcy in this way”. An example would be the collapse of W. T. Grant Company with profits, but negative cash flows (Mills & Yamamura, 2000). And the company analyzed in this paper is molding on the positive result - negative cash flow model. On the other hand, “an accounting loss does not necessarily mean a default and planning a bankruptcy risk” (Achim, 2012). We want only “a change in the perspective of the users” (Ivan, 2015), pointing their attention to the cash flow situation, which is the “modern instrument of performance measurement” (Popa et al., 2012).

5. Performance Assessment Based on Cash Flow

The cash flow statement is mandatory for entities of public interest and for medium and large entities that, at the balance sheet date, exceed the limits of at least two of the following three criteria (OMFP 1802/2014):

- a) total assets: EUR 4 000 000;
- b) net turnover: EUR 8 000 000;
- c) average number of employees during the financial year: 50;

and optional, but useful for small, unlisted entities, because "such a well-established situation allows the taking of useful information in the decision-making process regarding the negotiation of the terms of receipts and payments in order not to get into the situation of inability to pay" (Dănescu, 2014). The treasury provides key information as it is the source from which the entity finances its activity and secures its future (Ciuhureanu et al., 2009). "The ability of the entity to generate cash or cash equivalents" depends on "its ability to pay its employees, suppliers, creditors and to pay capital" (Todea, 2009). The entity's ability to pay is of real and direct relevance to all parties involved: investors are interested in dividends, staffing - timely payment of wages, suppliers and other creditors - to timely and full reimbursement of the debts that the entity has, the state - to have taxes paid, and managers are interested in dealing with all these debts.

Herțeg (2013) appeals to the "objective nature of cash flows". In the same assertion, Feleagă (1996) considers that cash flows are "concrete phenomena". "Profit is a point of view, while money is a reality" (Gîrbină, 2008). Therefore, the cash flow situation can not be easily manipulated, as it is not influenced by the accounting policies adopted (Popa et al., 2012), eliminating the effects of using different accounting treatments for the same transactions and events and increasing the comparability of different entities (IAS 7 Statement of Cash Flows).

In reporting treasury flows, the "juggling" that can be made refers to the categorization of a cash-generating operation in one category or another. Thus, flexibility stems from the possibility of classifying an operation into one of three categories: operation, financing or investment. Treasury flows from exploitation should have the most significant weight because "their level depends also on the company's ability to generate sustainable results" (Ivan, 2015).

Desiring to present an efficient operational activity, economic entities tend to classify positive flows as current and negative ones as inaccurate, international standards and regulations in our country permitting such interpretations in respect of interest paid and interest rates, and dividends received which, according to IAS 7 *Statement of Cash Flows*, also taken over by OMFP 1802/2014, can be classified as operating cash flows as they are included in the determination of profit or loss.

In principle, a sharp and consistent increase in cash flows from financing activity should be in the final balance or offset from the investment activity, otherwise it would mean that the operating activity can not be self-financing and is not, therefore, profitable in terms of cash generation.

Cash flows can be manipulated by such reclassification methods supported by creative but logical explanations, or can be distorted by actual actions that at one point can have a major influence on cash availability. Sales of receivables, lease-backs, bank loans, fictitious loans from affiliates, deferment of a payment have a positive influence on the treasury.

The importance of cash flows from operating activities is also supported by a study by Livnat and Zarowin (1990) concluding that “the components of operating and financing cash flows are directly and significantly associated with return on market shares, but not the same can be said about the cash flows related to the investment activity” (Ștefan, 2016). Also, a study by Jones and Widjaja (1998) among 157 Australian credit officers and financial analysts highlighted the increased relevance of cash flow for operating activities in decision-making relative to the activity of financing or investment. However, the examination of the investment activity is important to analyze whether the entity extends its activity or not, and further analysis of the financing activity provides information on how the entity finances its expansion or how it reduces its debt-related financing (Achim and Borlea, 2012).

6. Correlations between the Result of the Exercise and the Cash Flows

Comparing cash flow and accounting result, Ștefan (2016) estimates that “cash flows contain a higher degree of incremental information than earnings quantified through different forms of profit”.

“Starting from this relationship that is formed between the results and the cash flows, we try to find creative accounting practices”, due to “non-generating cash expenses and incomes, as well as the elements of assets and debts that defer receipts and payments” (Ivan, 2015), but we do not have to make hasty conclusions, as this difference occurs primarily on account of accrual accounting. However, comparing net cash flows with net profit “highlights the net profitability of generating cash” and determines the difference between “calculated and actual performance” (Achim and Borlea, 2012).

Howard Schilit (2003, 203) said in a study that by comparing cash flows with profit, we should get an alarm signal in the event of a large discrepancy. Reporting negative or small cash flows under a high operating result may give rise to suspicions about the quality of revenue and expenditure and may be a sign of the use of creative accounting. More specifically, “in order to detect the high incomes that do not bring cash, it is advisable to examine the relationship between cash flows from operating activities over a period of time and net income: if net income is positive, while treasury flows of the exploitation activity is negative, there is a likelihood of manipulation of the results by the leadership” (Ivan, 2015). However, the difference between operating cash flow and operating result after tax includes a normal component and one generated by the outcome management practices (Huian et al., 2018). So, not every difference is a sign of manipulation of the outcome.

Also, in order to detect the presence of the manipulation of the results, it would be useful to follow the evolution of the result and the cash flow from the operation activity. When the result increases by increasing revenue or decreasing spending, we also expect the cash flows from collecting the receivables that generated those higher incomes and the payment of the debts that generated those lower expenses to increase. If the result and cash flow of operating activity do not have the same trend, the signs of artificial transactions are obvious.

The table below presents values of the total result, operating result and cash flow components for a listed entity on the regulated market of the Bucharest Stock Exchange for a period of 5 years.

Table 3. The accounting result and the cash flow for the last 5 years for a listed company on Bucharest Stock Exchange (RON)

	2013	2014	2015	2016	2017
Gross profit	697.650	3.001.409	5.303.803	3.886.177	3.112.541
Operating profit	1.420.340	3.275.760	5.329.516	3.549.224	3.138.672
Cash flow	- 366.969	529.636	642.756	778.678	- 1.592.603
Cash flow from operating activities	- 487.692	2.068.452	3.890.329	3.948.046	349.349
Cash flow from financing activity	672.413	- 694.557	- 3.030.056	- 3.583.754	- 1.276.847
Cash flow from the investment activity	- 551.690	- 844.259	- 217.517	414.386	- 665.105

Source: www.bvb.ro

Table 4. Absolute profit / cash flow differences (RON)

	2013	2014	2015	2016	2017
Profit - Cash flow	1.064.619	2.471.773	4.661.047	3.107.499	4.705.144
Operating profit - Operating cash flow	1.908.032	1.207.308	1.439.187	- 398.822	2.789.323

Source: Own calculating

Table 5. Relative profit / cash flow differences

	2013	2014	2015	2016	2017
Profit / cash flow	-1,90	5,67	8,25	4,99	-1,95
Operating profit / operating cash flow	-2,91	1,58	1,37	0,90	8,98

Source: Own calculating

Table 6. Chain indicators

Chain indicators	2013	2014	2015	2016	2017
Profit		4,3022	1,7671	0,7327	0,8009
Operating profit / loss		2,3063	1,6270	0,6660	0,8843
Cash flow		-1,4433	1,2136	1,2115	-2,0453
Cash flow from operating activities		-4,2413	1,8808	1,0148	0,0885
Cash flow from financing activity		-1,0329	4,3626	1,1827	0,3563
Cash flow from the investment activity		1,5303	0,2576	-1,9051	-1,6050

Source: Own calculating

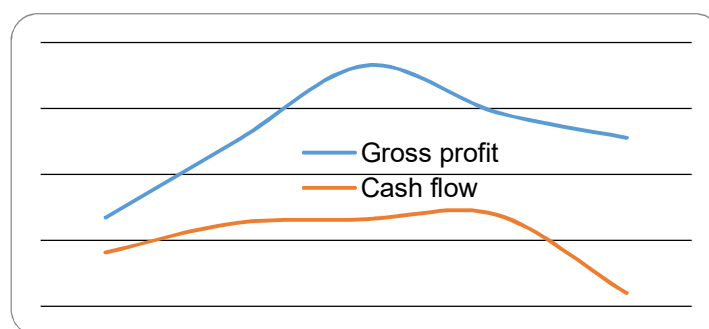


Figure 1. The comparative evolution of gross profit and cash flow

Source: Own editing

The absolute differences between profit and cash flow are substantial. In all five years the profit keeps much higher than cash flow, the differences being positive, except in 2016 when the operating profit is by 398,822 lei less than the cash flow related to the operation activity.

Significant differences are supported by the ratios calculated in the above table showing a return up to 8 times the cash flow in 2015. The differences are lower among these operating performance indicators until 2017 when the profit in operation records a value approximately 9 times higher than the cash flow from the operating activity.

We observe the figures presented in table no. 6, and better, in figure 1, a consistent, even opposite, difference between gross profit and cash flow that recorded negative values in the first and the last year. Profit is rising sharply by 2015, followed by a gradual decline by 2017. Growth is not as steep as cash flow, however, which has fallen in defensive from 2013, but declining in 2017 is far from profits.

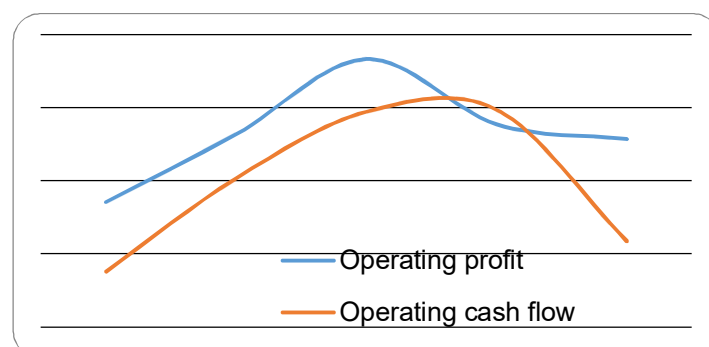


Figure 2. The comparative evolution of the profit and cash flow related to the operating activity

Source: Own editing

Operation activity shows roughly the same rhythm of profit growth and cash flow in the first two years, but the decline in 2017 has more impact on cash flow. Figure 2 is suggestive in this respect.

The parallel between the accounting result and the cash flows can also be seen from the perspective of the parallel between the accrual accounting and the cash

accounting. The overall conceptual framework advocates accrual accounting on the grounds that "information on economic resources and prices to a reporting entity as well as changes in its economic resources and claims to the entity over a period provide a more robust basis for assessing past performance and the entity's future than information relating only to cash and cash payments during that period." In other words, "treasury accounts provide only short-term information for the reporting period, without providing information about the past or future entity's commitments" (Dănescu and Rus, 2013). This does not, however, contradict the need to develop and analyze the cash flow situation which, as we have seen in the above analysis, shows us the performance from another perspective, attracting our attention in case of contradiction or offering, on the other, along with profitability, a more complex picture of financial performance.

7. Conclusions

Performance can be presented differently in terms of profit and cash flow. Because profit is often a matter of accounting choices, it is not the indicator that most faithfully reflects the entity's performance, which eventually reduces the entity's ability to generate cash to pay dividends to shareholders, employee salaries, supplier debts, taxes, and other State obligations. Obtaining profit is therefore a (more or less) necessary but not sufficient way to avoid financial difficulties.

The present paper is not intended to determine which of the two indicators - profit and cash flow - faithfully reflects performance, but to alert users that a single indicator is not sufficient for a complex performance analysis, given that choosing only two, the individual conclusions can be totally the opposite. Accrual accounting naturally determines a difference between the accounting result and the cash flow, but the cause of a large discrepancy could be the application of outcome management techniques. Therefore, especially in this case where the two indicators contradict, a more in-depth analysis of the performance and transactions that generate this discrepancy is recommended.

It is certain that financial performance and profitability are not equivalent terms. Profit may be at most a measure of performance, but before we hurry with a conclusion, we should also analyze the cash flow at least.

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ANALYSIS OF THE DIFFERENCES OF FINANCIAL STATEMENTS PREPARED IN CONFORMITY WITH IFRS BY COMPANIES OPERATING IN THE HEALTH CARE SECTOR AND ANOTHER SECTOR

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Abstract: *The primary objective of present article is to compare companies operating within and outside of the health care sector that prepare their annual statements in accordance with IFRS. In present article, comparative analysis of Richter Gedeon Plc. and Telekom Plc. is realized. Richter Gedeon Plc. is a large company operating within the pharmaceutical sector and its consolidated annual statement is prepared in accordance with IFRS. Telekom Plc. is a public limited company operating in the telecommunications sector, which also prepares its consolidated annual statement in accordance with IFRS. The reason for selecting the two companies indicated above is that Richter Gedeon Plc. is one of the largest pharmaceutical companies in Hungary, while Telekom Plc. as a company operating outside the health care sector is similar to Richter in terms of its size, as their balance sheet totals are almost identical in their consolidated balance sheets. The similarity in terms of the magnitude of their balance sheet data allows for the comparison of the annual statement practices of the two companies. The examined companies are compared based on their invested assets with especial emphasis put on their intangible assets. In the course of the comparative analysis, composition of the invested assets of the investigated companies is presented, and then the proportion and composition of intangible assets and the changes in the stock of the company and its possible causes are explored. Analysis of intangible assets takes place due to the sectoral specificities of the selected large companies. In relation with the comparative analyses, specificities of relevant IFRS requirements are highlighted.*

Keywords: *IFRS; health care sector; intangible asset; consolidate annual statement.*

JEL Classification: *M4.*

Introduction

In the course of present study, the comparative analysis of a company operating in the health industry and another from a non-health sector is carried out with regard to a certain area (intangible assets). The primary consideration regarding to analysed companies was that their consolidated annual statements are prepared in accordance with International Financial Reporting Standards (IFRS). Therefore, the selection of companies listed at the stock exchange is in any case necessary, since according to the decision of the European Union, as of 2005 the consolidated annual statements of such companies must be compiled in accordance with IFRS. In the scope of the comparative analysis, the consolidated annual statements of Richter Gedeon Plc. and Telekom Plc. are examined.

1. International Financial Reporting Standards (IFRS)

This section deals with the theoretical review concerning the research topic. In the course of the technical literature overview, fundamental characteristics of annual statements prepared in accordance with IFRS are discussed together with the principles of presenting and valuating intangible assets

1.1. Origins of the International Financial Reporting Standards (IFRS)

At the end of the last century, the European Union attempted to harmonize accounting rules in its Member States by creating regulations, directives, communications and recommendations (Beke, 2014). Consequently, stock exchange listed companies of the European Union are required to apply IFRS for the preparation of their consolidated annual statements, and it is allowed for Member States to prepare consolidated and individual financial statements for non-listed companies (Madarasiné Szirmai et al., 2018). The primary objective of creating the International Financial Reporting Standards was to standardize the preparation, procedures and valuation principles of annual statements (Lakatos et al., 2018). The IFRS include standards and interpretations issued by the IASB, which comprises International Financial Reporting Standards (IFRS), International Accounting Standards (IAS), and the International Financial Reporting Interpretations Committee (IFRIC), or its predecessor, the Standard Interpretations Committee (SIC) (Madarasiné Szirmai – Bartha, 2016).

1.2. Financial Statements in the IFRS

Preparation, structure and mandatory elements of financial statements in IFRS is governed by IAS 1 standard - Presentation of Financial Statements (Lakatos, 2013). According to the standard, the purpose of the financial statement is to provide potential investors with information about the financial position, performance and cash flow of the company (Rózsa, 2015). According to the IAS 1 standard, components of financial statements are the following:

1. Statement of financial position (balance sheet)
2. Comprehensive profit and loss account
3. Statement of changes in equity
4. Statement of cash-flow
5. Notes (Rózsa, 2015).

The IAS 1 standard also includes the line items to be presented in the balance sheet; however, it does not specify the order or structure of these items, but merely lists the line items that are required to be presented. According to the standard, it is necessary to apply other comprehensive lines if they are relevant to the understanding of the financial position of the company (Madarasiné Szirmai et al., 2018).

1.3. Presentation and Valuation of Intangible Assets in IFRS

In the life of companies, accounting of intellectual capital is a major issue, however more and more intense efforts are being made to account them as accurately as possible through intangible assets (Fenyves et al., 2018). Requirements regarding the presentation, measurement of intangible assets and disclosure of their relevant information in IFRS are governed by the IAS 38 Intangible Assets standard

(Madarasiné Szirmai et al., 2018). Intangible assets are identifiable non-monetary assets without physical substance, which are controlled by the entity as a result of past events and from which future economic benefits are expected. Intangible assets are initially recognized at original cost. Acquisition of intangible assets may take place as follows:

6. By separate purchase
7. As part of a business combination
8. By self-creation (Madarasiné Szirmai – Bartha, 2016).

In the case of an individual purchase, the cost is the purchase price adjusted with increasing and decreasing items; in the case of business combination, it is always the fair value. In the case of self-created intangible assets, the cost is the direct costs incurred in the course of production. IFRS distinguishes between research and development phases, only the costs of the development phase can be capitalized as assets (Lakatos et al., 2018). Goodwill also qualifies as an intangible asset; however, it is governed by a separate standard, IFRS 3 Business Combinations (Torma, 2016).

2. Comparison of the Intangible Assets of Richter Gedeon Plc. and Telekom Plc.

The following section compares the consolidated financial statement of Richter Gedeon Plc, which operates in the health care sector and the consolidated financial statement of the Hungarian Telekom Plc, which operates in the telecommunications sector. Comparison of the invested assets, especially the introduction of intangible assets of the companies will take place in terms of the last two business years.

2.1. Introduction of the Intangible Assets of Richter Gedeon Plc. based on its Consolidated Annual Statement

Richter Gedeon Plc. is a large company, which operates in the health care sector, more exactly in the pharmaceutical industry. Fixed assets of the company are presented in its consolidated balance sheet of the years 2016 and 2017 as follows:

Table 1: Composition and distribution of the fixed assets of Richter Gedeon Plc

	m Ft	%	m Ft	%
	2017	2017	2016	2016
Land and buildings, plant machinery and equipment	196 990	43.1	191 002	37.9
Goodwill	44 377	9.7	68 632	13.6
Other intangible assets	154 958	34	192 677	38.2
Shares in affiliated undertakings	11 847	2.6	8 541	1.7
Financial investments	35 482	7.8	32 864	6.5
Deferred tax assets	10 548	2.3	5 416	1.1
Loans	2 132	0.5	4 799	1
Fixed assets total	456 334	100	503 931	100

Source: Own calculation based on the consolidated annual statement of Richter

Table 1 shows the composition and percentage distribution of the fixed assets of Richter. Based on its specific industrial activities, Richter possesses a significant amount of intangible assets, including positive goodwill. It is noticeable that goodwill and other intangible assets are shown as separate line items. The primary reason

is that these items are governed by separate standards in accordance with the provisions of IFRS. Positive business or corporate value, also known as goodwill is created through a business combination, namely the acquisition of another company. Goodwill is governed by the IFRS 3 - Business Combinations standard, while intangible assets are governed by the IAS 38 - Intangible Assets standard. Although goodwill is an intangible asset, there are still many differences between them. One of the most important differences is that, according to the regulations of IFRS, in the case of goodwill no planned depreciation can be applied, only impairment loss that corresponds to excess depreciation. Another important difference is that positive goodwill cannot be presented in an individual annual statement; it can only be recognized in consolidated financial statements. As *Table 1* demonstrates, goodwill and other intangible assets represent approximately 50% proportion within the fixed assets.

In addition, it can also be observed that from 2016 to 2017, there was a decrease in the value of goodwill and other intangible assets, thus the total of the fixed assets declined. The main reason behind this is the recognition of significant impairment loss. A significant part of the impairment loss accounted on the goodwill and other intangible assets lines was caused by the fact that one of Richter's medicinal products (Esmya) might cause serious liver damage, and therefore an investigation was initiated against the company because of the potentially harmful substance. This event resulted in a nearly 60% decrease in operational earnings. The large decrease in intangible assets is offset by a 39,929 million HUF investment, most of which is related to the acquisition of intangible assets.

The part of the purchase that is not presented amongst intangible assets is related to the purchase of instruments and equipment that serve research and development activities. Richter Gedeon Plc possesses the following intangible assets:

9. Goodwill
10. Research and development
11. Rights representing assets
12. Intellectual properties
13. Other intangible assets

Research and development is one of the most determinant activities of the company. More than 1000 people are employed in this area. Richter's most prominent pharmaceutical research and development is realized on the fields of gynecology, cardiology, and respiratory medicine. In its consolidated profit and loss account, the company presents 35,153 million HUF in 2016 and 39,903 million HUF in 2017 in research and development costs. Costs incurred in R&D activities can only be recognized as assets if they are already in the development phase. If the research and development phases cannot be separated from each other, then the costs associated with the whole activity should be treated as research costs, thus they cannot be recognized as assets at all. In the case of the Richter Group, the share of rights representing assets within intangible assets is negligible. For example, the company classifies purchased brand names as rights representing assets. Only purchased brand names can be recognized here, as IAS 38 does not allow the recognition of self-created intangible assets and the costs related to them remain as items that reduce earnings. In addition to purchased branding rights, purchased market distribution rights are also recognized here, which were acquired from an external partner. Intellectual properties primarily include products created in the course of research and development activities, pharmaceuticals, and other

medicinal products. In addition, patents and trademarks related to medicinal products are also presented here. Besides intangible assets, land and buildings, plant machinery and equipment also represent a high share of fixed assets, they amount to approximately 40% in both business years, but there is a detectable decline. As it is apparent from the annual statement of the company accounts, the total amount of these assets serve pharmaceutical production and research and development activities.

2.2. Introduction of the Intangible Assets of Telekom Plc. based on its Consolidated Annual Statement

Telekom Plc. is a company, which operates in the telecommunications and information communications sector, which prepares its individual and consolidated annual statement in conformity with the IFRS. The comparative analysis is based exclusively on the consolidated annual statement. Composition and percentage distribution of the fixed assets of the company are presented in its consolidated balance sheet of the years 2016 and 2017 as follows:

Table 2: Composition and distribution of the fixed assets of Telekom Plc.

	mFt	%	mFt	%
	2017	2017	2016	2016
Tangible assets	458 343	49.8	483 174	49.2
Intangible assets	441 458	48	478 263	48.7
Investments in affiliated undertakings	1 324	0.1	1 078	0.1
Deferred tax assets	59	0.01	73	0.01
Other long-term financial assets	19 323	2.1	18 254	1.9
Other fixed assets	127	0.01	709	0.1
Fixed assets total	920 634	100	981 551	100

Source: Own calculation based on the consolidated annual statement of Telekom

As it is demonstrated in *Table 2*, almost all of the fixed assets of Telekom Plc consist of tangible assets and intangible assets. The share of investments in affiliated undertakings, deferred task assets, other long-term financial assets and other fixed assets is not significant, their combined share is less than 3% of the fixed assets. The company possesses the following intangible assets:

14. Goodwill
15. Concessions and licences
16. Software
17. Other intangible assets.

The goodwill of Telekom is associated with its subsidiaries and acquired branches, which are treated separately as operating segments. Based on the impairment loss analysis, the company concluded that it is not justified to recognize impairment loss. The returned amounts of operating segments are determined on the basis of fair value decreased by sales costs. Concessions and licenses are considered the most significant individual intangible assets of the company. Licenses include different 2G, 3G and 4G licenses. The costs associated with the acquisition of licenses are capitalized, while the discounted value of the future annual fees for frequency usage are capitalized only if they can be estimated reliably. As the company does not have intangible assets with indefinite useful life, it uses linear depreciation for all

intangible assets except goodwill. Concessions and licenses are depreciated in 3-25 years.

As it is more difficult to determine useful lives for intangible assets, than for tangible assets, Telekom reviews useful life of its intangible assets every business year, taking into account technological developments and, if appropriate, extends them. In the case of purchased software, the costs associated with purchasing and putting into operation are capitalized, development and maintenance costs are accounted as expenses. Software items include a small amount of own development, the capitalized cost of which is negligible, so self-developed software are not presented separately, the entire stock is treated as purchased software. Software are depreciated in 2-24 years, their useful life is determined individually.

Composition and proportion of intangible assets of the Telekom Group are presented in the following table

Table 3: Composition and percentage distribution of the intangible assets of Telekom Plc

	mFt	%	mFt	%
	2017	2017	2016	2016
Goodwill	212 284	48.1	218 098	45.6
Concessions and licences	121 512	27.5	147 077	30.7
Software	95 881	21.7	101 777	21.3
Other intangible assets	11 781	2.7	11 311	2.4
Intangible assets total	441 458	100	478 263	100

Source: own calculation based on the consolidated annual statement of Telekom Plc.

Table 3 shows that most of the intangible assets, nearly half of them are represented by goodwill. In addition, it can be observed that in the business year of 2017 the amount of intangible assets decreased, due to the recognized planned depreciations and impairment losses. In the course of the impairment analysis of fixed assets, they are assigned to the smallest identifiable unit (Cash Generating Unit - CGU) that generate separate cash flows.

2.3. Comparison of the Intangible Assets of Richter Gedeon Plc. and Telekom Plc.

Intangible assets of Richter and Telekom have been introduced in the previous sections, while present section deals with the comparison of the analysed companies. The comparison only involves 2017, since this is the last closed business year of the companies.

Distribution of the intangible assets of Richter are demonstrated by the following figure:

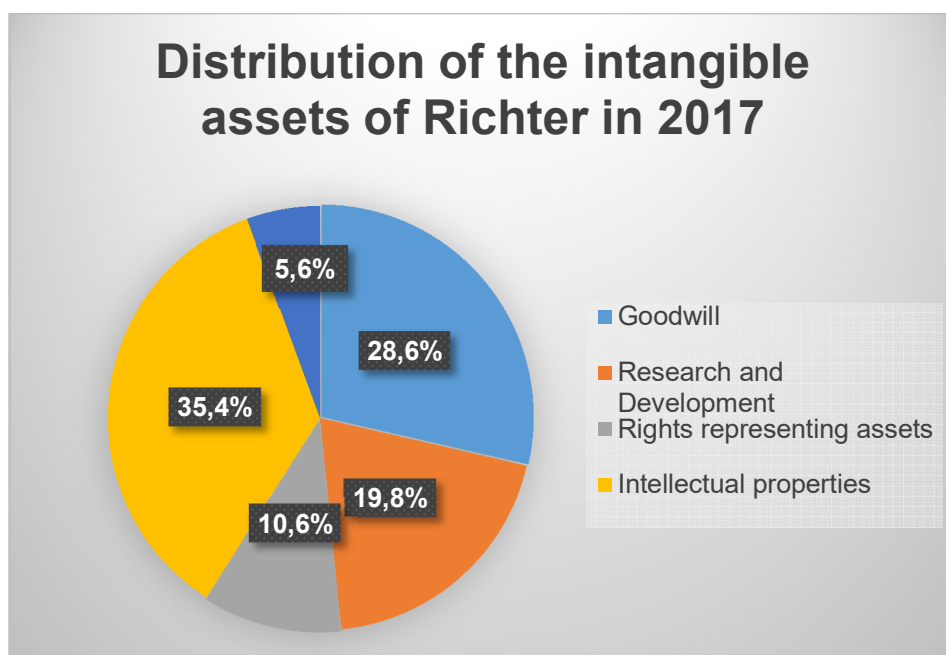


Figure 1: Distribution of the intangible assets of Richter in 2017

Source: own editing based on the consolidated statement of Richter

As illustrated by *Figure 1*, a significant part of Richter's intangible assets is comprised of intellectual properties, goodwill and research and development. The composition of Richter's intangible assets completely reflects its industrial activities, as it is a pharmaceutical company, where research and development and intellectual properties are the most commonly used assets. Conversely, Telekom presents – in addition to goodwill – concession rights and licenses and software among its intangible assets. Obviously, intangible assets are also characteristic to the industrial activity, as Telekom is a company operating in the telecommunication sector. This is the most significant difference between the intangible assets of the companies, as they operate in different industries.

Another significant difference between the two companies is that Telekom has to take into account the rapid technological development during its operations, therefore the company performs impairment loss analyses on all intangible assets in each business year, while Richter only performs these analyses in the case of goodwill generated in its subsidiaries. The largest similarity between the two companies in terms of intangible assets is that both companies have significant goodwill, which was created exclusively through the acquisition of subsidiaries. Richter has six subsidiaries that help and support production and development. In contrast, Telekom has eight subsidiaries, most of which are 100% owned. Another similarity among the companies is that none of them possesses intangible assets with indefinite useful lives, and with the exception of goodwill, planned depreciation is accounted for all assets in accordance with the investment cost model.

Distribution of the Telekom's intangible assets is demonstrated by *Figure 2*:

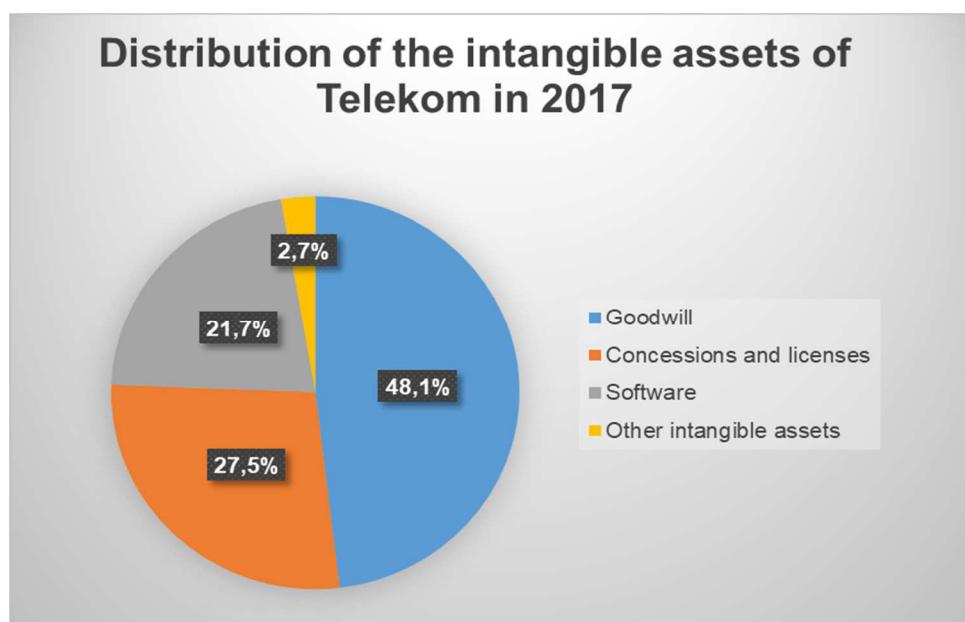


Figure 2: Distribution of the intangible assets of Telekom in 2017

Source: own editing based on the consolidated statement of Telekom

3. In Conclusion

In the course of the study, we compared the consolidated annual statements of companies (one operating within and one outside of the health care sector) that prepare their annual statements in accordance with IFRS. The comparative analysis was carried out through the corporate example of Richter Gedeon Plc. and Telekom Plc. Overall, it can be stated that since both companies prepare their statements in accordance with the requirements of IFRS, their valuation procedures, presentation and grouping principles applied are almost identical. By contrast, the industrial activities of the examined companies are different, resulting in significant differences in their statements, with particular regard to intangible assets. In the case of Richter, the vast majority of intangible assets are research and development and intellectual properties. In addition, research and development costs are presented separately in the consolidated profit and loss account, as these costs account for a large part of the costs of the industrial activities of the company. Apart from goodwill, most of the intangible assets of Telekom Plc. consist of various concession rights and licenses as well as purchased software. As the company is present in the telecommunication sector, it places great emphasis on carrying out continuous impairment loss analyses due to accelerated technological advancement, that are not typical of Richter

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KNOW-HOW PRESENT STATUS OF INSURANCES DOMAIN FROM THE PERSPECTIVE OF MANAGERIAL ACCOUNTING

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Abstract: *The aim of this paper is to highlight the field of insurances, whereas the author will present certain important aspects regarding their importance, in order to achieve a more efficient management accounting. Insurances represent an essential element of the market economy mechanism, which contributes to the country's economic development and to the improvement of the external economic affairs. Every human being acknowledges the need to protect and to purchase insurances, as an individual and optional act, mainly determined by objective factors- economic, financial, social, family and educational factors- as well as subjective factors- their previous experiences, considering the advantages and the protection offered by the insurances. In the present days, it is noteworthy that the insurances- depending on the economic life, the real estate and the movable assets, the international trade, the continuous assets flow, values and people- have registered an obvious tendency of augmentation, a fact which has positively influenced the evolution of reinsurances. The aim of the management accounting is to measure the performance: the money, the payment and return as cash payment time. Management accounting holds the key to one problem, and that is the future. It is said that, if through financial accounting we are informed about the past and what has happened, managerial accounting deals with the future and with what it is going to happen. The field of insurances is vast, where management accounting makes its presence sensed, where it aims to obtain a clear evidence for the future on the insurances' route.*

Keywords: *insurances; market; management accounting.*

JEL Classification: M10; M20; M21; M31.

1. Introduction

The year 2015 and the first quarter of 2016 marked positive evolution on the non-banking financial markets in Romania, against the backdrop of economic progress that surpasses the European Union average.

During the first six months of 2016 European economy increased by 1.8% annually, while Romanian economic growth was of 5%, ahead of the other countries in the European Union.

The favourable economic context did not translate into the financial markets, which were characterized by increasing volatility on international level, especially in January and February 2016, when the evolution of the Chinese financial markets

influenced the international stock markets, as well as in June due to uncertainty regarding the United Kingdom's exit from the European Union.

2. The Insurance Market in the European Context

The European economic context continued to improve throughout 2017 with a positive impact on the insurance market in Europe. There was some improvement in the case of consumers' expectations regarding the economic progress, as well. In the fourth quarter of 2017 the index of consumer climate, calculated by GFK, for the 28 member states of EU, reached its highest level of the last 10 years.

According to GFK, in 2018 there might be a rise in household consumption in the European Union due to the increase in the consumers' trust in a positive evolution of the European economy, alongside their expectations regarding potential pay rises. Turning the expectations linked to economic rise into reality may lead to continuing positive evolution of the insurance market on a European level.

Nevertheless, there is still a series of challenges related to the European insurance sector. According to the report on financial stability published by EIOPA, the economic environment characterized by low yields has led to the continuation of the 'search for yield' phenomenon. In this context, EIOPA has remarked on the materializing of a tendency of insurance companies to increasingly invest in assets that involve higher returns, but greater risks as well, such as infrastructure, mortgages or real estate.

In order to achieve a comparative study of the Romanian insurance market versus other European markets, a number of indicators showing the level of market development have been analysed.

The insurance penetration rate in the GDP is an indicator that is calculated as the ratio between the volume of gross premiums and the gross domestic product of the country under study.

The density of insurance is calculated as the ratio between the volume of gross premiums and the number of inhabitants, which states how much the inhabitant of a country spends on insurance products on average.

Pic. 1. The insurance penetration rate in the GDP (%) between 2012 and 2016

Country	2012	2013	2014	2015	2016
Austria	5,1	5,1	5,1	5,0	4,8
Czech Republic	3,7	3,8	3,6	3,2	3,0
France	8,6	8,8	9,2	9,4	11,0
Germany	6,6	6,7	6,5	6,3	6,2
Hungary	2,6	2,6	2,5	2,4	2,5
Poland	3,8	3,5	3,2	3,0	2,9
Romania	1,38	1,25	1,17	1,20	1,23

Source: own data-processing (INSSE)

The Romanian insurance penetration rate in the GDP was of 1.23% in 2016, while developed countries such as Germany or France recorded values of the same indicator of 6.2% and 11% respectively.

The density of insurance also indicates lower levels for Romania as compared to other countries under study. By reporting the density of insurance to the average gross income, Romania's percentage is of 1.5%, while countries like Hungary and

Poland record values of 2.8-2.9%. These differences are due to the maturity of the market and show that the Romanian insurance market has significant potential for development, which can be quantified by continual market incentives, building consumers' trust and financial education. The continuation of measures, doubled by increasing income can bring improvement of the insurance market indicators in Romania.

Pic. 2. The density of insurance (EUR)between 2012-2016

Country	2012	2013	2014	2015	2016
Austria	2.015	2.037	2.080	2.088	2.024
Czech Republic	593	585	558	538	522
France	2.949	3.047	3.218	3.326	3.954
Germany	2.338	2.436	2.452	2.432	2.433
Hungary	273	280	282	281	298
Poland	405	372	355	349	339
Romania	95	94	92	101	110

Source: own data-processing (INSSE)

Pic. 3. The ratio of the density of insurance in the average gross income

Country	2012	2013	2014	2015	2016
Austria	4,95 %	4,86 %	4,86 %	4,75 %	4,56 %
Czech Republic	4,96 %	5,09 %	4,93 %	4,61 %	4,28 %
France	8,13 %	8,27 %	8,64 %	8,84 %	10,39 %
Germany	5,28 %	5,45 %	5,36 %	5,20 %	5,09 %
Hungary	2,87 %	2,85 %	2,90 %	2,75 %	2,76 %
Poland	4,35 %	3,77 %	3,51 %	2,96 %	2,85 %
Romania	1,69 %	1,61 %	1,47 %	1,48 %	1,48 %

Source: own data-processing (INSSE)

Although the volume of gross premiums in 2017 in Romania rose, the insurance penetration rate in the GDP dropped to 1.13% last year. The decrease in the penetration rate is due to the GDP increase, which was faster than the rise in volume of gross premiums.

3. The Romanian Insurance Market

In 2017 the Romanian insurance market continued to follow an increasing trend and the authorized insurance companies governed by the rules of ASF underwrote gross premiums in the amount of 9.7 billion lei, 3.5% more than the previous year.

One change to the previous years' trends is the strengthening of the life insurance segment, which showed significant increase, of 21%, in 2017 compared to the previous year. While between 2012 and 2014 life insurance was on the decrease concerning the volume of gross premiums, starting with 2015 it resumed growth and the 2017 rise of the insurance sector was due to the life insurance segment.

Out of the total gross premiums underwritten by authorized insurance companies governed by the rules of ASF in 2017 (9.7 billion lei), the gross premiums underwritten in other countries reached a volume of approximately 98 million lei, 21% less than the previous year (123 million lei).

Car insurance, including class A3 (land vehicles, other than railway rolling stock) and class A10 (motor liability insurance) make up around 74% of the total gross premiums in non-life insurance and 59% of the total gross premiums underwritten by insurance companies in 2017.

The underwriting related to class A3 rose by 8% in 2017 compared to the previous year, whereas class A10 underwriting dropped by 8% in 2017 in comparison to the same period of the previous year.

The significant increase of underwriting in life insurance was mainly due to the classes of insurance "C3 Life insurance and annuity linked to investment funds" (17% increase) and "C1 Life insurance, annuities and supplemental life insurance" (24% increase).

In 2017 insurance companies authorized in other EU member states underwrote gross premiums totalling approximately 755.6 million lei in Romania through subsidiaries, under the right of establishment, 12% more than the same period of the previous year.

The actual insurance, in its simplest, classic form, which is also the most frequently encountered, lies in the financial protection against losses caused by a wide and manifold range of risks. (Bistriceanu, Bercea & Macovei, 2014).

The insurance is based on an agreement (contract) concluded between the insurer and the insured person, by which the insurance provider offers the insured person protection against the risks the latter has taken, being obliged to cover the exchange value for the damages (namely the assured amount for life insurances) if such events should occur, in return for an amount of money, known as "insurance premium", which the insured person has to pay. By paying the insurer the insurance premium, which is calculated by applying a small percentage to the insurable interest, the insured person receives in return the compensation deposit for the possible future loss for any of the risks included in the insurance terms. Thus the risk protection represents a specific merchandise (a service rendered), which is sold and bought like any other goods on a specific market, known as "the insurance market", part of the financial services market. In literature there are various approaches and means of expression which, in fact, denote the same thing. Some people believe that insurances may be regarded from several perspectives, and this is the reason why there are multiple definitions, some of which we shall present hereunder.

John Downes and Jordan Elliot Goodman, in "Dictionary of Finance and Investment Terms", define insurance as being "the system through which the natural and legal persons, being aware of the possible risks, pay insurance premiums to an insurance company which reimburses the respective sums in the case of damage. The insurer takes advantage by investing the premiums they receive... In a broader sense, the insurance transfers the risk from one person to a group that may pay for the damages more easily."

Some studies even consider that the insurance might be defined from two points of view, namely:

1. As a person (natural or legal) in the capacity of insured entity, the insurance might be regarded as a grant for a loss, given that, obviously, the funds will be available in order to cover the financial consequences of the risk occurrence. Its aim is to ensure the activity continuity and the survival of the insured person's business in the event of the loss.
2. As a means by which the risks for two or more persons or firms are combined through present or promised contributions to a fund that will be used to pay

compensations for the damages suffered by some of them. Due to the fact that the insurance is based on the risk transfer from one individual to a group, the other individuals will contribute with small sums to the coverage of the prejudice. From the insurer's point of view, the insurance appears as a means of retention and combination. The insurance appears as a means of transfer even of some risks among several insured persons, in a centralized manner, through a joint management of several pooling risks. Thus the insurer improves their ability of foreseeing potential losses.

Another definition is given by Yvonne Lambert Faivre who believes that "from the technical perspective, the insurance is the operation through which an insurer, organizing on the principle of mutuality a great number of insured persons exposed to certain risks, indemnifies those among them who go through a calamity on the basis of the common fund constituted by the cashed insurance money." D.S. Hansell defines insurance as "an instrument which offers financial compensation for the unfortunate events, the payments being made from the contributions of several parts that participate in this scheme".

This definition brings forward the existence of a fund comprising the contribution of all the insured persons (by means of the insurance premium) which will be used for covering the damages for those who suffer losses.

The insurance aims at countering the side effects of the risk. The risk is present everywhere all the time and, basically, any economic, political, social, cultural activity is threatened by the occurrence of certain events which lead to losses and, similarly, the lives of the individuals, their properties may be affected by accidents, earthquakes or other calamities. Obviously, some people might be menaced to a greater extent than the others by virtue of their activity, geographical location and other factors. From the insurance point of view, not any dangers people or goods are exposed to may be insured.

Hence, the insurance is based on an agreement between a natural or legal person in their capacity of insured entity and a legal person in the capacity of insurer, through which the insured person cedes the insurer a risk or a range of risks for which they get the insurer's protection. In exchange for this protection, the insured person pays the insurer a sum of money called insurance premium and, as a consequence, in the event of the insured risk(s) occurrence, the insurer will reimburse the insured person for the damages suffered. Thus, the insurance will materialize in a transaction whose object is buying/purchasing a certain service rendered, namely the protection against the possible future loss due to the occurrence of the agreed risks. The price of this protection is the insurance premium.

The insurance is based on the mutualism principle, according to which each insured person contributes with the insurance premiums to the insurance fund raising which will cover the equivalent amount of the damages suffered by the insured persons. Therefore, in exchange for a fairly small amount of money, the insured person will be guaranteed protection against risks, and the insurer manages this fund. The insurance aim is financial protection, namely restoring to the insured person the financial standing they had before the disaster occurrence, and not gaining a profit or the insured person's enrichment. Still, this fund may prove to be insufficient for covering the damages. That is why the insurers must increase the funds by investing these sums.

A very important aspect is that the money raised by the insurance companies through insurance premiums only belongs to them after the contract term has expired.

Meanwhile, the destination of these sums is related exclusively to the insured persons' interests until the end of the contract. Chiefly, when it comes to life insurances, but also to the other types of insurances, the money is entrusted by the insured persons to the insurers that are obliged to manage it in such a way as to permanently dispose of the necessary liquidity so that they should be able to face the payment obligations they have by means of the insurance contracts. So the insurer appears as a custodian of the insurance funds. In most countries, especially the ones with a mature and well-governed market, there are very strict legal provisions and prudential rules regarding the manner in which the available sums are invested (the type of permitted investments, the ratio between these and others) in order to avoid the insolvency or bankruptcy of the insurers. Therefore, the essence of insurance lies in the risk dispersion. The insured person transfers upon another person the peril of the financial loss caused by the occurrence of an event.

Defining the term of management accounting has to be done according to the following two aspects:

1. the previous interests in defining this "private section" of the accounting system;
2. its aims and the particularity of the accounting data processing.

The term of management accounting has set its meaning with difficulty, the specialists in accountancy using it with other meanings such as: management accounting or analytical accounting.

Management accounting is not an improper term, but it doesn't include the supreme outcome of the accounting data, its destination and the decisional document which serves the management of the economic entities.

The term of "analytical accounting" reflects the terms of the approach of this accounting section by detailing some structures of the financial statuses namely assets, debts, capital, revenues, expenses and outcomes which are processed and analyzed according to the management accounting perspective.

Thus, the management accounting can be defined as an assembly of procedures to identify, collect, quantify, analyze, report accounting data regarding the operations, activities, processes, works and services carried out by the economic entities in order to substantiate tactic and strategic decisions regarding the achievement of the aims set by the entities.

According to some specialists, the management accounting "is a large concept which involves knowledge and professional skills in preparing and especially presenting the required data on different hierarchical levels to the management".

The source for such data is the financial accounting and cost management accounting.

This very definition of management accounting leads to the wider sphere of management accounting. We can state that managers are able to base their decisions on using complex mix data which are both released at financial and cost accounting. (Topor Dan Ioan, The Accounting Background, Aeternitas Publishing House, Bucharest, 2016)

4. The Aims of the Managing Accounting

The identity of the managing accounting within the accountancy system is achieved through a set of structural components which sets it as a subject as such within the large group of subjects specific to the business studies domain as: its primary aims,

its study topic, methods and procedures applied within. (Sorin Briciu, Sorinel Capusneanu, Letitia Maria Rof, Dan Topor, Accountancy and Management Control. Tools for entity performance assessment, Aeternitas Publishing House, Alba Iulia, 2010).

The aims of the managing accounting are essential components which constitute an important argument from which arises the need to organize the economic entity.

The aims of the management accounting might be grouped as follows:

- the aims of analytical accounting of the accounting structures which arises after the operations and activities run by entities: assets, debts, capital, revenues, expenses and outcomes;
- efficiency aims regarding the calculation of certain partial and whole indicators regarding the profitability operation measurement and the activities of the entities such as their costs;
- forecast and control aims achieved through revenue and expenses budgets detailed at the entity level according to the level, ethnic-organizational structure, activity, product, work or services offered.

The aims of analytical situation for the financial structures situations are included into the application regulation of the policies and accounting options of acknowledgement and they include the following:

- a) analytical structure insurance of the types of assets;
- b) analytical structure insurance of the nominated and denominated capital standings;
- c) analytical structure insurance of the debt standings generated by different financial forms (trade credit, bank loan, founding through capital market or through leasing operations);
- d) analytical structure insurance of the expenses on the three activities (exploration, financial and extraordinary);
- e) analytical structure insurance of the revenues on activities;
- f) analytical structure insurance of the of the outcomes generated from the economic entities' activity.

The aim is to report the performances by calculating final and provisional, integral or partial performance indicators which can assess the financial-economic management of the entity.

The performances reported using integral final indicators are on one hand connected to concept of outcome of the exercise, and on the other hand the performances of the entity are reported by the cost category and can be developed with the following levels:

- Determining the financial-economic outcomes on functions of the entities and of their global profitability;
- Determining the financial-economic outcomes on activities of the entities and of their profitability;
- Defining financial economic outcomes according to the profit centres and the profit centre's rate of return;
- Defining the financial economic outcomes according to the types of products, works and services (PLS-uri) and profitability;
- Defining the products' costs, the works and services performed by the entity, and of the functional structures' costs and the entity's activities.

The performances reported through the intermediate key performance indicators of management rely upon some concepts, which highlight certain essential aspects of

the entity's economic management in the resources' use and appropriation process, as well as for ensuring the self-financing or the financial balance. They also refer to the following indicators:

- the mark-up;
- the added value;
- the exercise's production;
- the gross operating surplus;
- self-financing capacity;
- the management fund;
- the working capital;
- the working capital requirement;
- the net treasury.

Due to these aims, management accounting "pushes" the assistance limits of the management process beyond the framework of the operating surplus activity, on the entities' financial activity field. (Briciu S., Management accounting. Theoretical and Practical Aspects, the Economic Publishing House, Bucharest 2006).

The forecasting and control aims take into account the drawing up/preparation of the income and expenses budget for the entity's overall activity, as well as the preparation of the partial budgets according to the entity's functions or activities, which are represented as follows:

- the general activity's budget;
- the production activity's budget;
- the treasury activity's budget;
- the investment activity's budget;
- the financing activity's budget.

5. Conclusions

Management accounting should not be regarded as an aim, but as an important source which can supply information about the costs and decisive actions for the insuring of a society.

Consequently, in the economic informational system, the information about the costs have a major role. Considering this role, the management accounting has become an important problem for the society.

Irrespective of the costs' calculation method, and in order to provide all the necessary information for the decision-making system, one should pay great attention to a more rational organisation of the collecting system, the data storage, processing and transmission to all decision-making levels.

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WOMEN IN ACCOUNTANCY. THE CASE OF ROMANIA.

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Abstract: *This research investigates the gender issue related to the accountancy profession in Romania. The interest in the subject is motivated by the will to analyse the metamorphose of the profession in an evolving economical and social environment. The study enquired on the unfailing obstacles of women in the profession: from the initial difficulties in different cultures in entering the profession and actual difficulties of the female professionals to cover board chairs and key roles in accountancy. So, the paper inquires into the contrast between women's predominance in the profession and women's absence from senior roles in accountancy in Romania. The research was made using a combination of methods: in order to ensure the description of the argument in an international context, the study reviewed the relevant literature concomitant with a research based on semi-structured interviews with local accountants. The study is organized as follows: a short introduction is followed by the literature review, the description of the research methods and the presentation of the conclusions. The results revealed that even if during time women struggled to be admitted in the profession and couldn't achieve career success within the discriminatory environment of the accounting firms that they were working for, it seems that in the recent years an increasing number of women are getting above limitations of the gender stereotyping by entering the autonomus liberal accountancy profession. In the local context, the women presence is actually at 85% and that gender is not an issue influencing the results of the professionals. In Romania women prefer accountancy as a profession as they can manifest their patient nature and can benefit of comfortable work conditions. The study concludes that even if nowadays there is enough place in the boards of the different accounting organizations for both men and women, females are not predominant as they are less reliable: their personal accomplishment is through the family and not career so they are less available to dedicate time to work.*

Keywords: *accountancy; gender; profession; stereotyping; career; women.*

JEL Classification: *M410.*

1. Introduction

The actual research is part of a wider project which objectives regards the study of different details of the profession and professionals in Romania, with the final goal to achieve enough information to understand and draw a complete image of the modern accountancy profession in Romania.

Previous research, conducted by (Albu, Albu and Hodgson, 2011) studied the changing role of accountants in Romania, where a number of interventions like harmonization with the European Directives, the introduction of International Financial Reporting Standards (IFRS) and of modern information technologies made the accounting system more then "a tool to support a planned economy".

This paper investigates on women's role and evolution in the accounting profession in this dynamic context. Even if women's ability and experience within accounting companies were previously ignored, in the last decade of the twentieth century a substantial number of women entered into accounting (Welsh, 1992). The rarity of women at the highest hierarchical levels of accountancy is not a due to their ability to take on such positions but rather a matter of time. Therefore, increasing the female population of the profession will automatically resolve the problems facing women. (Ittonen, Miettinen and Vähämaa, 2010) indicates that "female representation contributes to board effectiveness and improves the board's monitoring activities within the company". But still, in top management positions men are still majoritarian. This paper aims to triangulate data from international academic literature and local interviews, in order to identify information regarding the mismatch between the disparity of women engaged in the profession and women leading in senior roles in accountancy, examining the international context and estimate similarities in the local market.

The study is organized as follows: a literature review on the gender issue in an international context is followed by the description of the research method. Data analysis follows, and a conclusion part ends the paper.

2. Literature Review

For the scope of this study, we are interested to research on the figure of women in accountancy. The studies cited below get us through the matter in different cultures and situations during time: the choice of independent careers, the absence of women from senior roles and the influence of stereotypes on women career in accountancy, and the perception of ethics between men and women in different cultures.

The study conducted by (Jeacle, 2011) revealed the injustice brought to a Scottish woman in the 20th century, Hellen Lowe. The paper shows the choice of an independent career as an accountant over her submission to an accounting firm. This decision arose from a gender issue and her professional limitation because she was a woman, she could not advance in her career properly and had to do much more work than a man.

Another important point is discrimination against women of those times, despite their accounting preparation and experience, women were subjugated to men. All this information is supported by an archive that demonstrates the weight of imposing a woman on a society in which men's words are more important than the word of women. The story of Helen showed us that women have learned to turn the gender issue problem of that time to their advantage and provides a new alternative of setting up their own business. Choice of this woman leads to consequences far greater than a career in accounting, it creates a new perspective on women accounting and other opportunities.

The results of this study is in line with (Whiting and Wright, 2001) who examined on gender discrimination in accounting and auditing professions in New Zealand. The study concludes that there is poor gender equity within the accounting profession as due to less experience and lower career aspirations women have lower job status with less compensation compared to men.

In a recent paper elaborated in Australia (Adapa, Rindfleish and Sheridan, 2016), the women's absence from senior roles in small and medium sized accounting firms has been explored. The regional context and the gender stereotyping of the women

resulted to be causes of the absence from senior roles in regional accounting firms. The study conducted thirty-one interviews with accountants working in small and medium sized accounting firms; each respondent was asked detailed questions about the internal corporate social responsibility and issues related to “doing gender” arose.

A majority of respondents spontaneously reported that there is an under representation of women in senior roles in regional accounting firms. Respondents raised that, the limited support services available for professionals balancing work and family in the regional context is a factor against progressing gender equity. Other argument raised was the exclusion of women from critical operational knowledge, and senior men’s attitudes about the capabilities of women in the accounting profession.

The study conducted by (Dambrin and Lambert, 2012) investigates the issue of women's hierarchy in accounting, the places occupied by them in different institutions, people's perception of women's accounts, and the small number of women in the management position. The paper was dealt with in two important parts, the first deals with the relations between the objects of research, the design of the research in correlation with the results obtained on the basis of a sample. And the second is about experience in this field and changing attitudes to prevent different gender issues.

The study concludes that experiences of women in accountancy will change with the challenge of stereotypes. Fighting male stereotypes should maintain a work-life equilibrium for women. Changes in family models, the increasing of single-parent families constrains single fathers as much as single mothers, so we assist the metamorphosis of the stereotypes.

A study conducted by (Albu, Rindfleisch and Sheridan, 2011) revealed that the traditional specialized position of the accountant would move towards hybrid positions. The study confirms that the current expectations for the Romanian accountants is moving towards hybridization. Due to the obvious separation between financial accounting and management accounting, the accountant profession is conversing towards a consultant or business analyst.

Using the same idea of the changing role of the accountants, another research developed in Canada by (Bonnie et al., 1995), studied the gender issues related to the attributes necessary to be successful in consulting, in the context of the accounting firms that “shift their focus to management consulting services”. As women are dominating the profession it is useful to know if they have the qualities to be successful.

The study used a questionnaire based on the descriptive index used by Schein (1973). A number of 500 accountants 250 males and 250 females with an average age of 37 years and of an 14 years of full-time work experience quoted 92 items developed to measure sex role stereotypes and characteristics of successful managers.

Contrary to the Schein’s results (1973), both male accounting consultant and female accounting consultant are perceived to be significantly different from the successful accounting consultant. Even though, male and female accounting consultants have common critical factors for success like competent, analytical and intelligent. This similarities, indicate that female accounting consultants are not perceived to possess characteristics which might be seen as sabotaging their success”.

A recent paper developed in Tunisia, by (Hichem and Imen, 2017) reviewed the relevant literature in gender over the period of 1994-2016. According to the theories of gender named alpha and beta (Welsh, 1992), where gender differences are exacerbated by alpha and ignored by beta we can find different approaches of the gender issue in accountancy. For example, from an alpha perspective,

- (Welsh, 1992) suggests that women are emotional compared to men who are reasonable.
- Women's speech at work is more tentative and attentive to emotional concerns, while men seem to be more active, controlling, intense and present-oriented (Cotten-Huston, 1989) cited in (Hichem and Imen, 2017).
- Women, generally, share the virtues of community and nurturing, while domination and rationality represent the prevailing characteristics for men (Hekman, 1990).

(Parker, 2008) considers accounting as objective and rational, characteristics which are male oriented. This is in line with the findings of (Broadbent, 1998) which concluded that accounting is defined by masculine values, inhibiting feminine characteristics and underestimating the emotional component.

Gender literature suggests that women in high positions are better prepared for meetings than men (Huse and Solberg, 2006), have higher anticipations concerning their responsibilities (Fondas and Sassalos, 2000) and want to reveal extra competence to reach top positions (Eagly and Carli, 2003).

Having better communicative abilities than men (Schubert, 2006), women are better prepared for meetings (Huse and Solberg, 2006). In the same time, their feminine nature differences them at a significant level regarding the risk preferences (Powell and Ansic, 1997; Bernasek and Shwiff, 2001). Being risk-averse, women cautiousness seems to disadvantage them from top positions.

A comparative study between Italy and Romania was developed by (Del Baldo, Tiron-Tudor and Faragalla, 2018) regarding the women's role in the accounting profession. The paper studies the gender issue through a historical reconstruction of the accountancy profession both in Romania and Italy and explains the factors affecting their presence in high level boards. The study revealed that in Romania cultural factors related to the collectivist society allowed women to enter the accounting profession but not in leading positions as „women would prefer to be loyal to the workgroup that values their skills” rather than seeking for career, as „promotion is not seen as a strong motivational factor” (Del Baldo, Tiron-Tudor and Faragalla, 2018). Despite the alpha theories of gender, which exacerbate the difference between the capabilities of men and women in accounting careers, the Italian state approached in a different way the matter and introduced the obligation of certain kind of companies to have at least one third representativity of women in boards until 2022.

Another paper, developed by (Zhao and Lord, 2016) highlights the evolution of the labour force in China from the perspective of women. Emphasize the difference between Confucian ideology during communism and socialism of the present. The research shows the decline of women's interest to occupy high positions in the economic field following maternity leave, resulting in lower expectations of women after becoming mothers across a promotion, such as the different behavior of management and a more superficial assessment of new mothers than the rest of the employees. It has also been found that the recruitment of women who have just given birth to a child is much more difficult because they meet the skepticism of the

future employer of their knowledge and coherence at work. Because of Confucian ideology, the Chinese people have ingrained the fact that the man is the source of income in the house, and the woman deals with raising children and housework. The article succeeds in highlighting the differences of vision of women in Western countries and women in China, especially as Chinese women accountants would rather work for professions business companies than accounting firms. In conclusion women are much harder to impose in this economic area and to succeed in having two lives: one at work and one at home.

Literature researched also on the matter women accounting professionals and pregnancy with reference to women employed in the Big 4 accounting firms in different countries. (Dambrin and Lambert, 2008) shows evidence that women working for two Big 4 accounting firms in France who intend to become a mother manage the dilemma by adapting their teams to their work life balance. Another recent study, (Lupu, 2012) investigates on women's rarity in top positions within Big 4 French accounting firms. Balance between family and professional career represents an important factor that causes absence from a very early stage.

Further studies, like (Anderson, Johnson and Reckers, 1994) provide evidence that women having families with children and women with poor physical appearance are perceived as less likely to obtain career success in public accounting. The (Windsor and Auyeung, 2006) confirm that the advancement of female accountants in the career is negatively influenced by dependent children in places like Australia and Singapore. (Haynes, 2017) examines the relationship between body and self for women accounting professionals during the pregnancy period and early motherhood in the UK. Women accounting professionals seem to embrace a newly gendered identity during and after their pregnancies, which could be either oppressive, liberating or both, depending on the context.

During time, the balance between feminine approach and professional career has been in the attention of the researchers. (Komori, 2008) provide evidence that women accounting professionals in Japan apply a constant feminine approach in their day-to-day work. (Whiting, 2008) investigates on the blend between career and family responsibilities of women chartered accountants' career success in New Zealand. The study shows that in order to demonstrate higher levels of career success women accountants adopt the traditional men or work-first women strategy.

3. Research Approach

In order to elaborate this paper, a review of academic literature has been done together with qualitative methods as follows: the research was conducted in international publications like *Accounting in Europe*, *European Accounting Review*, *Critical Perspectives on Accounting*, *Accounting and Business Research*, *Accounting, Auditing and Accountability Journal*, and *Accounting and Management Information Systems*. The research was made using data base like Emerald Insight, and Clarivate Analytics Web of Science. The interrogations have been done using keywords like: "Accountancy", "Gender", "Profession", and 112 articles qualify connected to the subject of the research. For the elaboration of this paper 13 articles were selected and reviewed underneath.

The qualitative research was made using the interview with 11 accounting professionals in Romania. Therefore, the interviewers are not statistically representative. The interviewers were both men and women, 4 men and 7 women,

with age between 35 and 65 years. All the professionals are based in Constanța and are Romanian citizens, so the interviews were carried out in Romanian. The interviews were semi-structured: some topics to be covered during the interview were decided in advance and some of the topics occurred during the discussions. Interviews duration varied from a minimum of 40 minutes, to a maximum of 120 minutes and were conducted at the workplace of the interviewees or in my office in Constanța. The interviews were conducted without using a voice recorder but notes were taken during the interviews which were fully transcribed. In order to identify the main themes and observations that were discussed by the authors and in order to eliminate possible misunderstandings, content analysis of transcripts was performed afterward. No qualitative data analysis software was used in the process, as the number of interviews was not very voluminous.

4. Results

The present study also analyzes the gender issue in Romania with the final goal of understanding the feminine position in the profession and “illustrate the considerable trials that some women had to face in gaining admission to the profession”, (Haynes, 2017).

Statistics made using the demographic data base of the Body of Expert and Licensed Accountants of Romania (CECCAR), the branch of Constanta, showed that the percentage of women engaged in the profession is 85% (from a total of 1668 members, 1432 are women and 236 are men). This is in line with (Bonnie *et al.*, 1995) which study of the characteristics of accounting professionals engaged in consulting activities and states that demographics indicate that women are beginning to dominate the accounting profession. The percentage of accounting graduates who are female increased from 14 per cent in 1973-74 to 51 per cent in 1991. In addition, more than 50 percent of today's accounting students are women.

The interviewers have been asked how do they perceive, from a professional point of view, the difference between male accountants and female accountants. None of the respondents considers that gender is an issue influencing the results of the professionals: 16 states that “I can't say that a man's work is better than a woman's work. Professionalism is not influenced by gender” and 111 says that “From my point of view, between men and women there is no difference. Women in time evolved the same character and strength as men, fight for the same job and they managed very well their emotions”. This is in line with previous literature by (Pfeifer *et al.*, 1978) that found no significant differences in personality traits between male and female MBA students and by Cumpstone (1982) which focused on personality traits and generally showed no significant difference between male and female accountants. Similarly, beta bias considers the gender factor as neutral in organisations, according to (Welsh, 1992), as the ideal employee is the one whose central life interest is work and has nothing to do with gender.

And still, the study analyzes on which are the reasons for finding more women than men engaged in the accounting career? A recent paper which objective is to analyze the motivations of choosing accountancy as profession in Romania (Țicoi and Albu, 2018) organized the research in categories of factors influencing the professionals to choose accountancy. The study concluded as per second place of importance, the relational factors, with three variables: interactional perspectives and communication, team work and work conditions (comfort). The working comfort

registered the highest mean score (3.650 out of 5) among these factors. The importance of this group of factors is in line with the results of previous studies (Sugahara and Boland, 2006). Our respondents like I10 states that: "In the accountancy profession, women are majority because they are more meticulous and like to work in a clean place. Men could be more rational and have a more developed logical thinking", while I6 affirm that:

"Accountancy is an office job and is favourable for the women, they prefer to stay in the office then in a construction yard. Patience and feminine characteristics have nothing to do with this. There are men more patience then women, I think it depends on each one".

Generally, the profession is considered easy physically but intense intellectually I7 says that "The profession is less physical even if is intellectual hard work. They work with the pen and the computer". In detail, female characteristic like patience and meticulousity have been considered to be major motivation of the presence in high percentage of women in the profession. I8 affirm that: "Women are more patience, they enjoy details" and I9: "Women are more meticulous. From my point of view this profession requires analytical thinking – which is a native feminine feature", while I11 thinks that:

"Women are more intuitive and meticulous and like planning. The prevailing of women in this career is given by the working at a desk, the clean environment, the possibility to advance from a professional point of view, the financial safety".

Finally, the study analyze on which are the reasons for finding more men then women in key role positions in accounting profession. An Australian study (Adapa, Rindfleish and Sheridan, 2016) noticed the women's absence from senior roles in small and medium sized accounting firms showed that the gender stereotyping of the women is the cause of the absence from senior roles in regional accounting firms. The study showed that the limited support services available for professionals balancing work and family in the regional context is a factor against progressing gender equity. This is in line with the findings of the interviews, most of the respondents considered that women responsibilities regarding the family require time which can not be dedicated to work and career. For example, I6 states that:

"There are more men in the boards because women have more responsibilities after work and do not have time to dedicate to the career. I did not had time for this kind of things because I choose to dedicate time to my family".

Instead, the affirmation of I9 seems to clear the eventual worries on the matter as "I think the reason is ancestral: the men is a hunter and women are mothers. Or it might come from the reminiscences of the misogynist society, but in my opinion the accomplishment of a woman comes from the family and not the career".

(Nishiyama, Camillo and Jinkens, 2014) studied, among other aspects regarding the motivations of the profession, the disproportion of turnover among female accountants. (Dalton, 1997) concluded that that disproportionate turnover among female accountants in Big 6 firms was due primarily to work/family conflict. At this regard, I7 states that: "Women do not assume the career because of their feminine nature: they are instable and often get pregnant so men are favoured". About the reasons why the men are favoured in the key roles, I10 states: "The reasons why in the boards the majority is masculine because they like competition, control and authority and I9 think that "Men are working more relaxed then women".

Even if during time women struggled to be admitted in the profession, as for example Mary Addison Hamilton being the first women to achieve membership of one of

Australia's recognized professional accounting bodies or Helen Lowe in Scotland who established her own practice as she couldn't achieve career success within the discriminatory environment of the accounting firm she was working for, it seems that in the recent years, from literature at this regard (Marlow and Carter, 2004) shows that an increasing number of women are "breaking through traditional gender – based occupational and sectorial confines by entering the autonomus liberal professions". Interviewers are in line with this conclusion, as they state that I8: "There are no more differences, there are also women in the boards of the companies" and I11: "Man are still considered more bossy, more self-contained, even if women already caught up from my point of view". Still, this is not in line with recent studies (Siboni et al., 2016), which concludes that "Women are still systematically excluded from senior positions, even in the science sector, which is supposed to be the ultimate meritocratic domain. When women reach higher positions, they are often paid less than men in the same position. There could be no justification for these injustices".

5. Conclusions

The actual research is part of a wider project which objectives regard the study of different details of the profession and professionals in Romania, with the final goal to draw a complete image of the modern accountancy profession in Romania.

The information obtained in this paper using data from the academic literature and interviews, facilitate us to explore the mismatch between the disparity of women engaged in the profession and women leading in senior roles in accountancy.

Statistics made using the demographic data base of the Body of Expert and Licensed Accountants of Romania (CECCAR), the branch of Constanta, showed that the percentage of women engaged in the profession is 85%. We concluded from the interviewers answers that gender is not an issue influencing the results of the professionals. But still we found out that there are more women then men engaged in the accounting career for different reasons like comfort of work conditions, patience. Being less physical, it seems the career is preferred by women.

Consequently, the study analyze on the contrast in finding more men then women in key role positions in accounting profession. We found out that the women's absence from senior roles is due to the gender stereotyping of the women. Their responsibilities regarding the family require time which can not be dedicated to work and career and that they reach accomplishment through family and not career. Although, it seems that nowadays there is enough place in the market for everyone, women interested in career can catch up with men which that per nature like competition and control.

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**SECTION: *INTERNATIONAL BUSINESS,
EUROPEAN INTEGRATION, FOREIGN LANGUAGES
AND BUSINESS ENVIRONMENT***

INTERNATIONAL MIGRATION. CASE STUDY: ROMANIA

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Abstract: *In the present paper we are discussing the peculiarities and the characteristics of people's migration. We think that this is a topical issue given the increasing rate of this phenomenon both in Romania and in the other European Union countries and not only. The literature and speciality studies conducted by the competent bodies in each country and at the level of the European Union helped us identify both the reasons that led people to make this decision and their impact on the individual and on the community of the origin as well as the destination country. The topic is comparatively approached within the whole community, offering the possibility of classification according to the age and sex of the persons, the level of qualification and the reason that determined the decision to emigrate. In the context of international migration, we identify three interdependent elements: immigration, emigration and re-emigration. These three elements have been influenced by various factors throughout history. These are among the most diverse: natural (natural catastrophes, earthquakes, floods, and landslides), political (deportations) and finally the economic ones. Migration in Romania has increased with the fall of the communist regime. The number of emigrants has grown year by year, and after the accession of Romania to the European Union and the free movement of Romanian citizens on the territory of the Union, the emigration rate rose even more. Starting from the neoclassical theory, which, at the microeconomic level, highlights that: "international migration is proportional to the global demand and supply of labour force", we notice the countries that received the largest number of Romanian emigrants. Among the most sought destination countries are Spain, Italy and Hungary, closely followed by USA, Israel and Germany. In the destination countries international migration is a tool used to adjust the labour shortage in the market. Emigrants are predominantly young, trained, prepared to offer skilled work in all areas. However, individual migration cannot change the evolution of the aging rate of the population, registered in most European Union countries.*

Keywords: *migration; types of migration; emigrants; immigrants; workforce; remittances.*

JEL Classification: *J61; F66.*

1. Introduction

Migration is a complex phenomenon that involves moving people from one territorial area to another, followed by changing home and / or engaging in a form of activity in the arrival area (Rotariu, Zamfir and Vlăsceanu, 1998:351-353).

In the context of international migration, we notice three interdependent elements: immigration (temporary or definitive reception of people from other countries), emigration (temporary or definitive exit of the population of the country of origin), re-emigration (return to the country of origin).

The factors that have caused migration are extremely diverse. In time, migration has been influenced by the following factors: social (wars, invasions, and diseases), natural (natural phenomena, earthquakes, and floods), political (deportations), and economic (low wages, high costs, high prices, etc.). The latter factor has influenced many people in our country – Romania - to make the emigration decision, which is not an easy one. The ones who leave the country, chooses a destination, and then seeks to make a better future for themselves and their families.

The identified factors determine different *types* of migration.

Depending on the reporting area, migration can be international (outside the state borders - when the person leaves the country where he / she is domiciled) or domestic (within the country – the person settles in another city, elsewhere in the country).

Migration can also be forced (caused by natural, political calamities) or voluntary. In some cases, migration can be mass (the decision belongs to large groups of people; e.g., the latest Syrian people migration to Europe) or individual (the decision belongs to one person)

One of the most important migration classifications is legal and illegal.

Legal migration occurs when migration regulations are respected, when the state receives these people, respecting human rights and fundamental freedoms (Anghel, 2009:25): legal migrants (migrant workers arriving through destination countries' workforce programs), former repatriated citizens, ethnic migrants (sometimes referred to as "return"), students, participants in different institutional mobilities and long-term experience exchanges, family migrants (marriage, adoption, family reunification), political refugees (Anghel, 2009:25).

The recruitment of migrant workers and humanitarian crises have been seen as legal large-scale migration.

Two of the most popular are:

- The *Gastarbeit* program in Germany, where legal migrants were received in Germany during different successive periods (Bade, 1987:644-656).
- The *Bracero* program in the United States, bringing Mexican workers to farm work (The *Bracero Program – the resettlement of the Mexican Workers from the US. The return of Mexicans could only be partially accomplished, and legal migrants often returned illegally*). (panoramamedia.informatia.ro/index.php.module) Sjaastad 1962; Todaro 1969, Available: <http://www.revision-notes.co.uk/revision/171.html> [23 March 2019]

These methods were used to cover the labour shortage in the market at that time.

Illegal migration: This kind of migration does not respect the legislation of the countries involved in migration.

2. The Neoclassical Theory of Migration

The neoclassical theory is a bifurcated theory:

- A macro level dimension when seeking explanations of migration in terms of variations in labour supply and demand related to the two areas (origin and destination of migration), and
- A micro level dimension when performing a comparative analysis of salaries, jobs, etc. "the neoclassical economic theory suggests that international migration is proportional to the supply and global demand for labour. Nations with poor labour supply and high labour demand will have high wages that will attract migrants from nations with surplus labour."(Sjaastad, 1962 and Todaro, 1969)

The neoclassical theory replaces the individual with the family as a decision-maker on the migration option. Revenues do not act in this new vision as absolute reference terms but through a reference community, i.e. by family positioning on the income scale within the community of membership.

The cause of migration, therefore, is not simply the gap in development and income at the international community level, but the deterioration of the position of the household in the home community. People are moving according to their economic and political context. "If Third World emigration is portrayed as the result of economic problems caused by the global economy, then such migration must be managed through better international agreements than through laws that restrict migration". (*Migration Theories of Migration*, <http://family.jrank.org/pages/1170/Migration-Theories-Migration.html>, accessed on March 25, 2019)

3. Migration Phenomena in Romania

With a population of 19.531 million inhabitants, in 2018 Romania ranked 7th in the current configuration of EU countries (EU28), after Germany (82.86 million people), France (66.97 million people), Italy (60.44 million people), Spain (46.76 million people) and Poland (38.41 million people). (EUROSTAT - *Population and employment [nama_10_pe]*, 2019)

According to the demographic statistics, Romania lost over 2.5 million people during the last 3 decades, mostly due to migration and emigration. There were two *migration* mechanisms in Romania before 1989: *permanent* migration that mainly resulted from the political and ethnic issues, and the *temporary* migration aiming to study or work abroad, based only on inter-governmental agreements of Romania with other countries. After 1989, the main reasons for migration have turned from political and ethnic problems to economic reasons. Therefore, temporary migration has increased both in figures and in the proportion of total migrants. With the fall of the communist regime, in 1989 the decline of the Romanian industry begun. If until then the population had a job that would bring the necessary incomes to the family maintenance, after that big factories underwent a continuous reengineering and privatization process, dismissing the staff, and then shutting down all the production. Nowadays, there are several migration mechanisms that make migration international. We will analyze those mechanisms to be found within the European Union (EU), namely those through which people residing in Romania migrate to the countries of the European Union.

Legal permanent migration represents migratory flows leaving Romania to other EU countries to settle there by different means:

- *By obtaining emigration visas as part of special programs to encourage emigration* of persons with qualifications that are scarce in the receiving country or other types of programs (such as visa lottery). The EU does not carry out such permanent emigration programs. The Romanian citizens who permanently emigrate go to countries that have such emigration policies and programs as Canada, USA, and Australia.
- *By marriage*: marriage to a citizen of an EU member state and permanently settling in the respective country or another country in which the two work.
- *As a refugee or asylum seeker* for political or war reasons. In Romania this has not been the case after 1989.

Legal temporary migration refers to people who travel to the territory of an EU country for a limited period (from a few months to several years).

- *Students*: we can talk here about students from Central and Eastern Europe enrolled in university studies in countries of the European Union and who will then return to their native country (those using the Erasmus Program included).
- *Workers (labourers)*: these are workers from Romania who leave the country to work holding labour contracts concluded based on bilateral agreements between states. Romania's Labour Migration Office helps citizens work legally in the EU countries.
- *Refugees and asylum seekers*: refugees who receive this right to temporary stay in an EU country or asylum seekers seeking asylum on political grounds; some people claim these rights without a legal basis - they try to obtain by any method the right to stay in that country (for Romanian citizens wishing to migrate to EU countries, these rights are almost null).

Illegal transit migration is the process by which people resident in other countries outside of Central and Eastern Europe emigrate to these countries, including Romania, with the specific purpose of arriving and emigrating to one of the countries of the European Union. This activity is new, and the most important features are the illegality and the involvement of criminal organizations of human trafficking, as well. *Illegal migration to those from Central and Eastern Europe (from Romania)* includes Romanian citizens who leave Romania and remain illegally in an EU country - after the expiration of their legal stay of max. 3 months. They are people who leave as tourists but once they arrive in the destination country, they carry out activities without legal forms of work or citizens entering and then illegally staying on the territory of an EU country.

Circulatory migration with the help of migrant networks (legal or illegal) is that movement between the country of origin and one or more destination countries. Migrants work in a member country, return to their native country, stay for a while, and then go back to work abroad. Thus, migratory networks appear, networks through which people who want to temporarily work in another country are helped and supported by others.

The countries they aimed at were well-developed, capitalist ones, where work was well-paid. The countries that received the largest number of Romanian emigrants after 1990 were Italy, Spain and Hungary.

Table 1 shows the countries according to the number of Romanian immigrants received:

Table 1. The number of emigrants from Romania according to the countries of residence in 2010

Country	Immigrants	
	Number	Percent (%)
TOTAL	2,769,053	100%
Italy	813,037	29.4
Spain	810,471	29.3
Hungary	189,055	6.8
Israel	182,099	6.6
United States	171,253	6.2
Germany	134,911	4.9
Canada	96,209	3.5
Austria	56,932	2.1
France	54,305	2.0
United Kingdom	53,081	1.9
Other countries	207,700	7.5

Source: Istvan Horvath, *International Migration of Romanian Citizens after 1989*, Traian Rotariu, Virgil Voineagu, *Inertia and Change - Social Dimensions of the Transition in Romania*, Polirom Publishing House, 2012, p.202-203

If at the beginning of the 1990s the age of those who decided to leave the country was mainly, in between 41-50, the situation has changed since 2002, when by abolishing visas, Romanian citizens could travel freely in the countries of the European Union. (European Commission, *Treaty on the Functioning of the European Union*,

http://ec.europa.eu/budget/library/biblio/documents/2014/SEC_2013_370_final_IV_en.pdf, accessed on March 18, 2019)

In 2013, most emigrants (29.0%) were aged between 25 and 34, a situation valid for both male (32.2%) and female (26.5%) population; the second highest percentage covers the 15-24 age group (24.1%), with 24.3% males and 24.0% females, followed by the group with ages between 35 and 44 – 18.0% (male - 17.9%, female - 18.1%). (http://media.hotnews.ro/media_server1/document-2015-08-28-20384907-0-19-migrarea-externa-anul-2014.pdf, 2019)

The unemployment rate was very high in Romania at that time.

As shown in Table 2, in 2017 the case is almost the same as it was in 2013, but with a slightly decrease of the percentages of the Romanian emigrants. Thus, most emigrants (28,95%) were aged between 25 and 34, a situation valid for both male (31.79%) and female (26.00%) population; like in 2013, the second highest percentage covers the 15-24 age group (20.41%), with 21.29% males and 20.41% females, followed by the group with ages between 35 and 44 – 17.71% (male - 19.19%, female - 16.18%).

Table 2. Long-term temporary international migration of the Romanian citizens by gender and age group in 2017

Age group	Immigrants				Emigrants (no. persons)					
	Male (no. persons)	Female (no. persons)	Total (no. persons)	% of TOTAL	Male		Female		Total	
					No. persons	% of Total	No. persons	% of Total	No. persons	% of TOTAL
0-4	3197	2780	5977	3,60	5593	5,01	4749	4,41	10342	4,72
5-9	5183	4656	9839	5,93	4928	4,41	4179	3,88	9107	4,15
10-14	3148	3278	6426	3,87	4298	3,85	3735	3,47	8033	3,66
15-19	2856	2821	5677	3,42	6945	6,22	6049	5,62	12994	5,92
20-24	7204	6024	13228	7,97	16827	15,07	14956	13,89	31783	14,49
25-29	13027	11348	24375	14,69	20286	18,17	17171	15,95	37457	17,08
30-34	12875	10255	23130	13,94	15206	13,62	10821	10,05	26027	11,87
35-39	12749	8071	20820	12,55	12206	10,93	8904	8,27	21110	9,62
40-44	9686	6708	16394	9,88	9223	8,26	8513	7,91	17736	8,09
45-49	7739	6747	14486	8,73	7413	6,64	9902	9,20	17315	7,89
50-54	3860	4179	8039	4,84	3322	2,98	6150	5,71	9472	4,32
55-59	3287	4568	7855	4,73	2485	2,23	5743	5,33	8228	3,75
60-64	2216	3224	5440	3,28	1474	1,32	3691	3,43	5165	2,35
65-69	1180	1590	2770	1,67	784	0,70	1693	1,57	2477	1,13
70-74	294	563	857	0,52	326	0,29	674	0,63	1000	0,46
75-79	176	248	424	0,26	207	0,19	435	0,40	642	0,29
80-84	54	80	134	0,08	100	0,09	193	0,18	293	0,13
85-89	23	34	57	0,03	27	0,02	75	0,07	102	0,05
90-94	8	10	18	0,01	12	0,01	30	0,03	42	0,02
95-99	0	0	0	0,00	0	0,00	2	0,00	2	0,00
100 and over	0	0	0	0,00	0	0,00	0	0,00	0	0,00
TOTAL	88762	77184	165946	100	111662	100	107665	100	219327	100

Source: own calculations based on data of the INS, *Populația rezidentă la 1 ianuarie 2018 și migrația internațională în anul 2017*, published by INS on 29.08.2018; press release archive: <http://www.insse.ro/cms/ro/content/popula%C5%A3ia-rezident%C4%83-la-1-ianuarie-2018-%C5%9Fi-migra%C5%A3ia-interna%C5%A3ional%C4%83-%C3%AEEn-anul-2017>, accessed on February 25, 2019.

These people were operating outside the country's borders under legal conditions; thus, it thinned the ranks of the unemployed; moreover, they sent money to the country. This money provided the living for the family left home.

Remittances are those money transfers to the country of origin, and those associated with migrant labour as migrant flows to families, friends were compensation for the 'brain-drain' phenomenon and, in general, for human capital outflows. At microeconomic level, beneficiaries of remittances are the families remaining in the country. At macroeconomic level, the effects of remittances can be seen by increasing domestic consumption, while affecting the balance of payments, because there are also effects on inflation, exports and imports (Constantin, 2004), but also the social insurances budget, because the family left home (mainly children and the non-active elders) is putting pressure on the budgetary expenses due to the lack of contributions of the emigrants to the national budget.

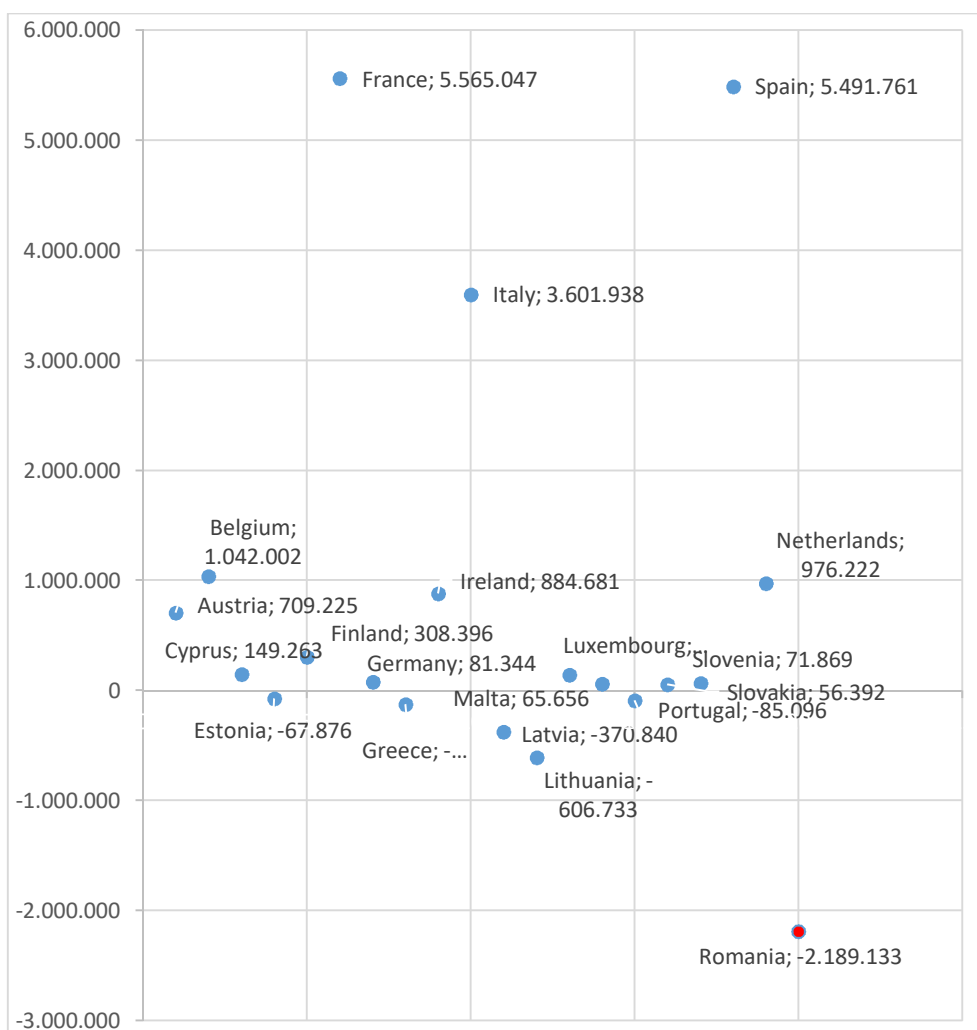


Chart 1: Change in the resident population in Romania compared to the most representatives of the EU member states, 2002-2017 (number of persons)

Source: own calculations based on the data released by INS and EUROSTAT – INS, *Populația rezidentă la 1 ianuarie 2018 și migrația internațională în anul 2017*, published by INS on 29.08.2018; press release archive: <http://www.insse.ro/cms/ro/content/popula%C5%A3ia-rezident%C4%83-la-1-ianuarie-2018-%C5%9Fi-migra%C5%A3ia-interna%C5%A3ional%C4%83-%C3%AEn-anul-2017>, accessed on February 25, 2019; EUROSTAT - *Population and employment [nama_10_pe]*, link <https://ec.europa.eu/eurostat/data/database> [18 March 2019].

The temporary settlement of one of the family members in a European Union country, led a few years later to the reunion of the family. Therefore, if at the beginning it was decided to migrate temporarily, with the reunification of the family, the enrolment of children in school, the migration became definitive.

The purpose of migration has turned from a pecuniary one to a cultural, educational, social- and health one.

According to the National Institute of Statistics (INS) and EUROSTAT, the population of Romania decreased by 2.2 million people in the last 15 years (2002-2017), about 10% (Chart 1), which differentiates it from the evolution of most other EU Member States.

In Romania, the average salary is approx. 530 euro / month. (INS, 2019) This is a few times lower than the EU average; the tax and social assistance systems are the main reasons why migration for work is very strong. Social and economic analysts mention that half of the poor Romanians are not socially excluded (unemployed, sick, chronic, disabled) or semi-clustered (retired); they are people who have stable jobs but so poorly paid that they can barely support their primary needs. Thus, although in recent years certain categories of household incomes (minimum wage and average wage, etc.) in Romania have experienced significant increases, they remain at a low level compared to the general level of income in the other EU Member States and are reflected in high levels of poverty and work poverty at national level, maintaining significant territorial disparities from this perspective, with the risk of depopulation of some areas and local financial imbalances, combined with high external migration and internal migration brakes.

In the context of these developments, Romania's demographic dependency ratio increased in the period 2002-2017, from 46.4% to 49.5%, and according to EUROSTAT forecast it will continue to grow to 52.3 % in 2025 and 58.1% in 2030 respectively. These trends are due to the decrease in the youth dependency rate from 25.8% in 2002 to 22.9% in 2017 and the estimate of a further reduction in the level this indicator to 23.5% in the year 2030 as well as an increase in the dependency ratio of the elderly from 20.6% in 2002 to 26.6% in 2017 and the estimation of the further increase of this indicator to 34.7% at the horizon of 2030. (EUROSTAT, <https://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data>, accessed on March 26, 2019)

The rate of demographic dependence is doubled by a rate of high economic dependency. Over the past years, in Romania, on average, an employed person has 1.2-1.3 inactive and unemployed people. (INS, http://www.insse.ro/old/sites/default/files/field/publicatii/labour_force_in_romania_2017.pdf, accessed on March 26, 2019) This level of economic dependence is reflected in challenges in terms of labor force replacement rates and the sustainability of social security, health and unemployment insurance balances.

4. Conclusion

Nowadays, Romania is facing a severe demographic decline, against the backdrop of negative natural growth and high and persistent external migration, generating imbalances in demo-economic structures (demographic and economic growth rates with a growth trend, the loss of important shares in the age group 15-44 years, demographic aging and increase in the average age of the employed population), with risks of adverse impact on macroeconomic balances.

Among the causes of this high and growing labor shortage are massive external migration of skilled and highly skilled workers, reduced domestic labor mobility, quantitative and qualitative discrepancies between the supply of the education system and real market needs labor, lack of cooperation between employers and

institutions with responsibilities in the field of employment and adult vocational training.

For Romania, emigrants are a real loss, but they show us the state of the Romanian economy and society as being incapable of generating appropriately paid jobs. As for the countries that receive these emigrants, they are a young, malleable, trained workforce capable of delivering high performances, being a competitive labour force on the European community labour market.

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FOOD WASTE ANALYSIS IN ROMANIA IN COMPARISON TO THE EUROPEAN UNION

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Abstract: This paper focuses on analyzing food waste and assessing its economic impact. In order to wrap our heads around the context of food waste in Romania, there was a need to see how the subject was legislated in the country. Unfortunately, it had a rather difficult journey, requiring at least two years to enter into force in a fair form. To correctly identify the essential aspects of food waste, we presented the ideas of several theorists who have addressed this matter from various perspectives. It is noteworthy that, endorsing a feasible approach, to production and consumption, is very important in order to prevent food waste. Meanwhile, there is not always a clear incentive, for the producer or consumer, in how to reduce food waste. The European and national directions are aimed at accomplishing the sustainable development goals (SDGs) by 2030. The most important sustainable development objectives, related to our subject, are the number two target - zero hunger and number twelve target - responsible production and consumption. In order to achieve these objectives, the measures taken by the competent institutions, in Romania and at European level, are identified. The graphs and analyzes, presented in our article, show the correlation bounded by food waste at the European level and at the national level, both prior to joining the European Union and beyond. With regard to total food waste, both at national and European level, the overall trend is constant. Actions to diminish food waste in Romania were subsequently observed in Romania's accession to the European Union. Prior to its` accession, Romania did not respect all existing European measures on this issue, but afterwards, a drastic improvement was observed. As a result of this research, we see that food waste raises major problems at national and at European level. The authorities' desire to solve this problem is noticed, and the steps towards resolving it are constantly taken, but it is exceedingly strenuous to estimate the time when food waste will be reduced to such an extent that a change for the good is noticed.

Keywords: *food waste; sustainable development goals; responsible production and consumption.*

JEL Classification: Q18; Q53.

1. Introduction

We live in an era marked by strong contrasts in terms of public nutrition. On the one hand, we are talking about excess food production and, on the other hand, we are talking about food waste and the achievement of sustainable development objectives, respectively goal number two - zero hunger and objective number 12 -

responsible production and consumption. In order to achieve these measures, the Romanian competent institutions have created a working document entitled "The National Strategy for Sustainable Development". This document has a European correspondent, "The next steps towards a sustainable European future. European Action for Sustainability". These documents are closely linked to Agenda 2030 for Sustainable Development, adopted by UN General Assembly.

This paper seeks to identify national legislation in this field, to recognize the current state of food waste at national and European level, to find the causes of food wastage and to assess its economic impact. Over the last years, there has been a fierce need to quantify the amount of food discarded, in the context of global famine and the effects of this action.

2. Food Waste seen through the Eyes of the Theorists

The issue of the topic tackled, food waste, has been dealt with in the literature by a number of theorists who have drawn attention to the impact on the society, on the economy, and not to mention, on the environment. Effie Papargyropoulou et al. (2014) conducted a study based on interviews with specialists in the food waste field, analysing the limits among avertible and inevitable food waste, food excess and food wastage, and as well as waste prevention and management. This research proposes that the first step towards a more feasible solution to the issue of food waste is to adopt a sustainable approach to production and consumption and to address the food and waste surplus in the worldwide food distribution system. The researchers investigate the causes that produce food wastage within the food distribution system and suggest a plan for identifying and prioritizing the most suitable alternatives for the prevention and for the management of food waste (Papargyropoulou, E., et al., 2014).

The identification of the root of food waste was emphasized in the work researched by Jessica Aschemann-Witzel et al. (2015). They revealed the circumstances that produce food waste, starting from household consumers and ending with the supply chains. The results have shown that consumers' catalyst to prevent the wastage of food, their abilities to manage the supply of food and to manipulate it have an extensive influence on food waste behaviours. The authors identify the actions that governments, the stakeholders and the retailers can launch to reduce consumer food waste, highlighting that the synergic action between all parties is the most promising (Aschemann-Witzel, J., et al., 2015). The issue was also addressed by Norbert Raak et al. (2017) in their research. They identified the following causes: on the one hand, a part of the losses occurs from the processing operations and from the assurance of the quality of the food and on the other hand, the existence of the products that do not meet the quality requirements of the trade (Raak, N., et al., 2017).

In order to participate in the "Save Food!" Congress, from 16 to 17 May 2011, Jenny Gustafsson et al. (2011) composed two studies: one on food waste, and, respectively, one on wastage in general. Studies have quantified the volumes of food and food waste occurring globally each year. Food losses refer to a decrease in the quantity or quality of food in the early stages of the food distribution system, reducing the amount of food appropriate for human consumption. The concept of food waste is, thus, often linked to post-harvest activities that do not have system or infrastructure capabilities. Food waste, by contrast, often refers to the later stages

of the food supply chain, such as retail households and consumers. Therefore, the causes of food waste are often related to human behaviour (Gustafsson, J., et al., 2011).

In a research conducted by Silvia Scherhauser et al. (2018) it is assumed that the predicament of food waste lies in the discharge caused during the distribution system and in the kind of food which is wasted. Impact from food waste treatment and disposal is not the driving factor of food waste. Most of the impact derives from the primary production step. Priority should be given to food waste avoidance, as a result. By preventing food from being wasted, emissions in any consequential stage of the food distribution system can be avoided. Priority should also be given to preventing meat and dairy products from going bad, as they generate most of the repercussions. Food waste prevention at household level has the greatest effect to mitigate global warming (Scherhauser, S., et al., 2018).

In the work of Raveendran Sindhu et al. (2019), we find that food waste is extremely effective for generating high-value chemicals. Although there is a real interest in this, because the chemical compounds, resulting from the decomposition of food, find utility in production and economy, unfortunately, there is no technology for an efficient conversion (Sindhu, R., et al, 2019).

3. Relevant Romanian Legislation in the Food Waste Field

Food waste has a wide-ranging approach at European level and has become a subject of interest, including in Romanian society. In 2016, the first law on food waste was drafted, namely Law 217/2016 regarding the reduction of food waste. This should have come into force on May 21, 2017, however, it suffered three successive deferrals, a modification and a republication brought by Law 200/2018 and, the most important fact, the creation of a set of methodological norms for the implementation of the law. On 11 February 2019, the law regarding the reduction of food waste entered into force in an improved form with provisions needed by any state that is evolved and worried about the fate of its citizens and nature.

3.1. Provisions of the Initial Form of Law 217/2016 on the Reduction of Food Waste

In the initial form of the law, economic operators were advised to manage expired foods. Thus, they were forced to take several actions regarding the status of the food.

First of all, economic operators had to try to prevent waste by educating suppliers and consumers. If after this action they remained on stock with out-of-date products, the next step was trying to sell them at a reduced price. If they were not able to sell them after the price cut, the next action was donation during the last three days of validity, either to non-profit entities (NGO), which redirected them free of charge to the underprivileged population, either to organizations or companies that used it as animal food. Unless the food was suitable for human or animal consumption, it could be transformed into compost, biogas or neutralized. In addition, NGOs working in the social welfare area could buy the food up to 3% + VAT out of the purchase price and could sell them up to 25% + VAT, thus, these NGOs could cover the costs of redistributing and storing food.

The fines for those who did not respect the law ranged between 1,000 and 3,000 RON for micro-enterprises, between 3,000 and 6,000 RON - for small and medium enterprises and between 6,000 and 10,000 RON - for large enterprises.

3.2. The Provisions of the Current form of the Law 2017/2016 on the Reduction of Food Waste

In the present form of the law, the requirement is waived for the economic operators to undertake all the actions mentioned in the normative act, being enough to fulfil at least two of the actions.

The law brings a number of additional tasks for economic operators opting to apply preventive measures, so they have the obligation to draw up annual reports presenting plans for diminishing food wastage. Food donation can also be done by economic operators at any time during the past 10 days of shelf life until the minimum durability date is reached. The following perishable food is exempt: unpasteurized vegetable and fruit juices, pre-cut vegetables and fruits, germinated seeds, fresh meat and offal from bovine, porcine, caprine, sheep, horses, poultry, wild or farmed game, minced meat, prepared meat, raw milk and raw milk products, fish and fresh fishery products, eggs and raw egg products.

The law provides that the receiving operators may sell food to the final consumer at a price that allows annual coverage of personnel, utilities, business operations of the receiving operator for the commercialization of the donated food, according to the law. For staff salaries, the average salary for the economy will be taken as reference point.

Including the value of the fines has changed, so the economic operators that do not abide by the law can be sanctioned between 1.000 RON and 10.000 RON, without any differentiation between the size of the economic operators.

3.3. The Existing Norms at European Level

National legislation has its origins in rules emerging at the European level. The European Commission has a plan to stimulate Europe's transition to a circular economy that will boost global competition, drive sustainable progress and create new jobs. This idea has created a European action plan that includes revised waste legislation. Thus, at present, there is in force the Directive 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98 / EC on waste. This directive calls on the EU to take action to decrease food waste at every level of the food distribution system, monitor the food waste and to report on progress made.

In order to meet the goals of sustainable development, the Commission has set up a platform on food waste and is working on a methodology for measuring food waste. (https://ec.europa.eu/food/safety/food_waste/eu_actions_en, 13 Apr 2019)

4. Achieving Sustainable Development Goals in the Field of Food Waste

According to the 2030 Agenda for Romania's sustainable development, the main objectives are to eradicate food hunger and growth of food security by increasing agricultural productivity and reducing food waste. It also aims to ensure sustainable consumption patterns and production (<http://dezvoltaredurabila.gov.ro/web/objective/odd2/>, 13 Apr 2019). There are steps taken by the European Commission in order to reduce food waste, at

European level. According to data from a European Union study, led in 2016, approximately 88 million tonnes of wastage from food is generated annually in the European Union. Average costs associated with food waste in 2012 were about 143 billion euros. Thus, the EU-per-capita spending on food waste for 2012 was about 284 euros per capita.

5. Methodology

In order to determine, on the one hand, the ongoing situation and, on the other hand, the evolution of the quantities of wasted materials and wasted food, quantitative and qualitative data were analysed from the European bases, namely Eurostat.

6. Results and Discussions

In the beginning of the analysis an assessment will be made of the evolution of waste in Romania compared to the European Union in the agricultural sector, the household sector and in total, in order to determine both the trend of evolution and the share of Romania in the total waste in the Union EU.

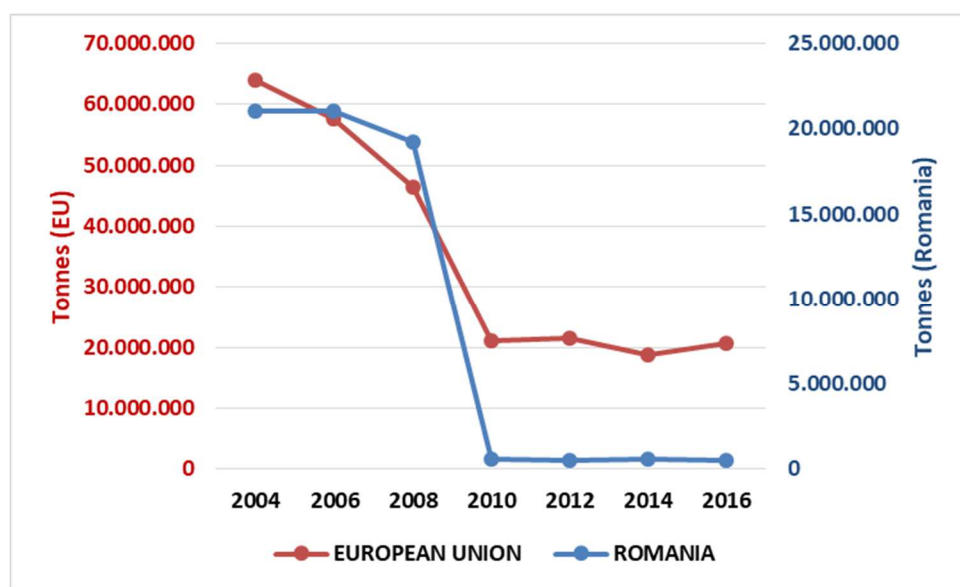


Figure 1: Agriculture waste

Source: own data processing <https://ec.europa.eu/eurostat>

Figure 1 shows the evolution of scarce quantities in agriculture over the period 2004-2016, both at national and EU level. As we can see, these quantities show a decreasing trend, as could be expected, given the intentions of EU policies in recent times, which are increasingly focusing on environmental protection and sustainable development. Romania had a significant share of the scattered amounts in agriculture in the pre-accession period, compared to the EU total, respectively 33-36%. In 2008 (the second year after accession), the share of the quantities scattered in agriculture in Romania reported to the EU as a whole was 41.3%, respectively.

However, Romania has managed to reduce this waste to 2.45% of the EU total in the last year, with agricultural waste going to about 508 thousand tonnes of the EU total of 20.7 million tonnes.

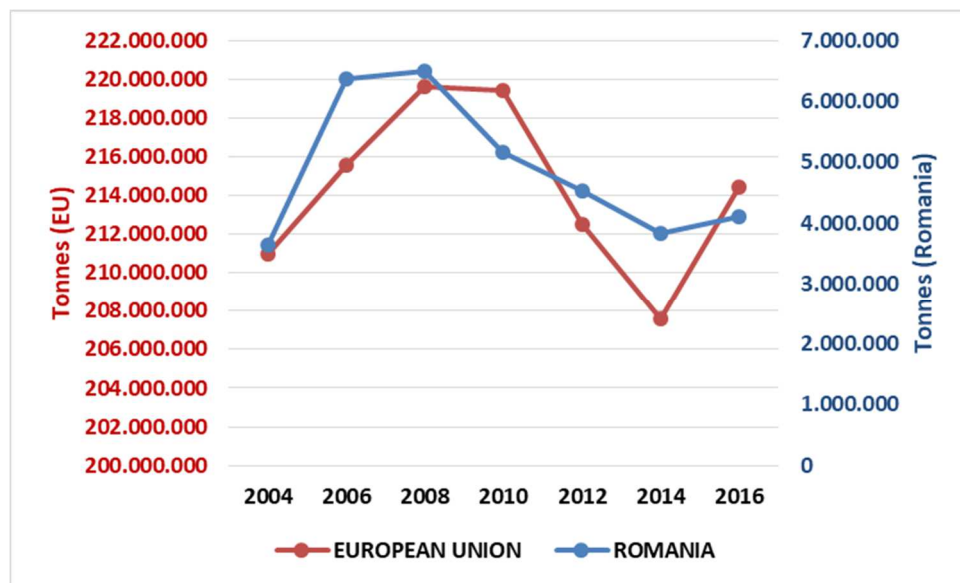


Figure 2: Household waste
Source: own data processing <https://ec.europa.eu/eurostat>

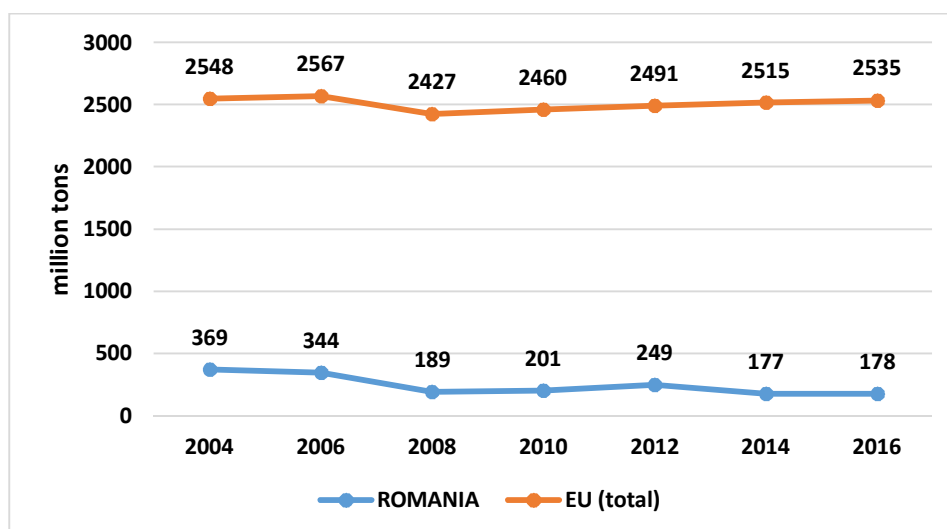
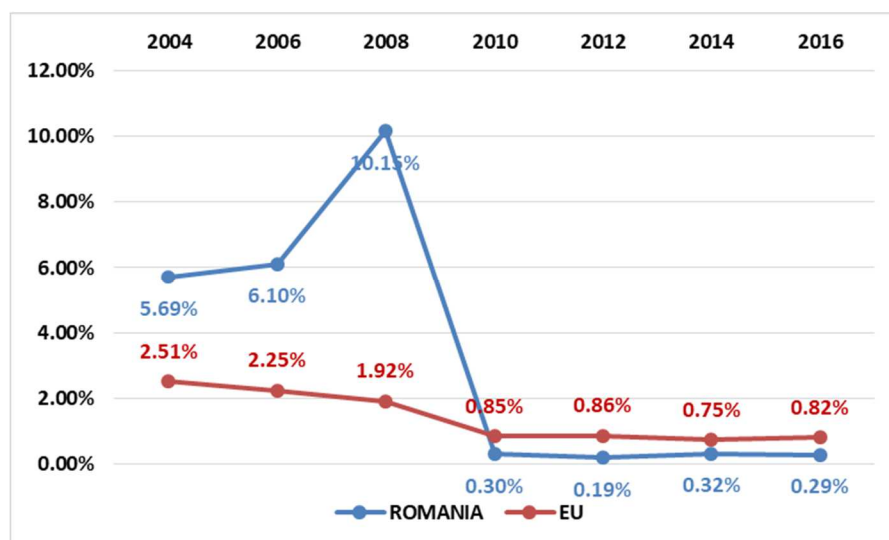


Figure 3: General waste (millions of tonnes)
Source: own data processing <https://ec.europa.eu/eurostat>

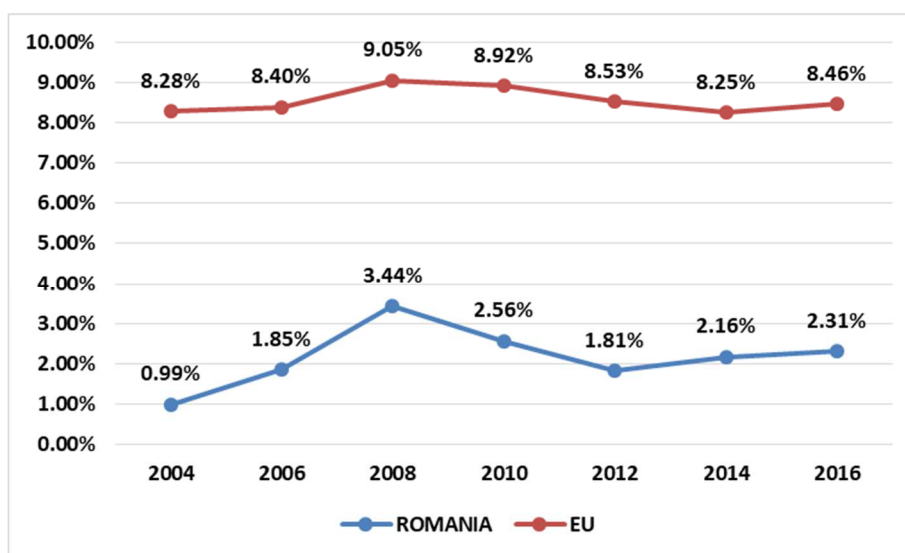
In Figure 2 we can analyse the evolution of the scattered quantities in the households, respectively at the final consumer. As can be seen from the figure, it is possible to observe different levels of this type of waste, as Romania recorded over

the entire period of analysis scattered quantities between 3.6 million tons and 6.5 million tonnes, compared to the level EU with a total waste of 208-220 million tonnes. The general trend of evolution is slightly increasing, with an average growth rate of 2% for the scattered quantity in Romania and only 0.27% for the total. Although the situation seems favourable in Romania, the share of waste in the household is similar to that in the agricultural sector, so Romania has a constant level. In the last year, the amount displaced at household level in Romania represented 1.9% of the total EU.

Regarding the overall waste, both at national and European level, the overall trend is decreasing, but not very fast. In other words, at EU level, there is a negative average rate of only 0.08%, so we can say that the general waste at this level is constant, and the community's policies are holding back these quantities. At the national level there is a negative average rate of 11.5%, but this is for the entire analysed period, including the pre-accession period, in which Romania had to make efforts to comply with the European Union standards, therefore there is a significant decrease in this, if we look only at post-accession periods where it can be seen that the tendency tends towards a constant one, similar to that of the Union. At a general level, over the whole analysis period there is a share of the scattered quantity in Romania, about 9.7% of the total EU, and in the period 2008-2016 this share was about 8%.



a) Agriculture



b) Households

Figure 4. The share of waste from agriculture and households of Romania and the European Union in total activities

Source: own data processing <https://ec.europa.eu/eurostat>

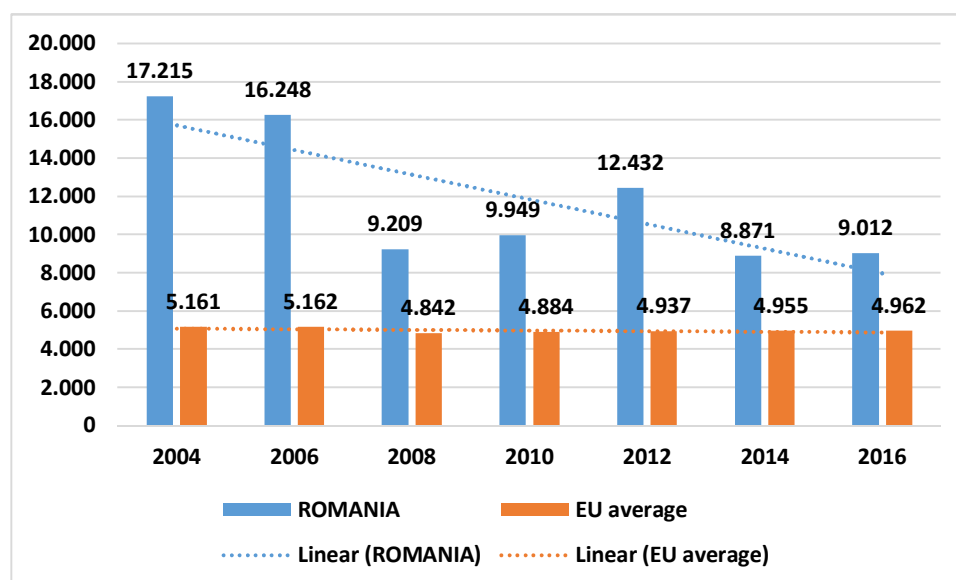


Figure 5: Evolution of scattered quantities per person (kg / inhabitant)

Source: own data processing <https://ec.europa.eu/eurostat>

As can be seen, Figure 4 shows the weights of the quantities scattered in agriculture (a) and in households (b) both of Romania and of the European Union, in the total quantities scattered.

As far as waste in agriculture is concerned, as we can see, the share of the European Union has decreased, reaching in 2016 at 0.82%. In Romania, although at the beginning of the period, the share of agricultural waste has reached 10%, following EU accession and compliance with standards, Romania has complied, therefore, in the period 2010-2016, the waste of agriculture reached below the EU average, respectively 0,29% in 2016.

As far as household waste is concerned, it can be noticed that the shares are quite distant, thus, on average, for the whole analysed period, at European level there is a share of 8.55%, instead in Romania, the share of waste from households in the total is 2.2%.

If we divide the total scattered amounts to the number of inhabitants, we can analyse the situation at micro level, if so. Thus, in Figure 5 are graphically depicted the scattered quantities of each inhabitant, both in Romania and in the European Union. Considering the total amount scattered at the level of the European Union, which does not have very high oscillations in time, remaining constant, as is the case with the population, there is also a constant scattered quantity per inhabitant of about 5 tonnes per capita. In the case of Romania, there is a scattered amount, higher per capita, than the EU average, oscillating between 8 and 12 tonnes in the last period, but it is on a downward trend taking into account the pre-accession years when were recorded amount was of 16- 17 tonnes per capita.

In the second part of the analysis, the food waste that is recorded at the European and national level in the statistical bases of the European Union Council will be assessed as well. These data was only available in the 2010-2016 timeframe.

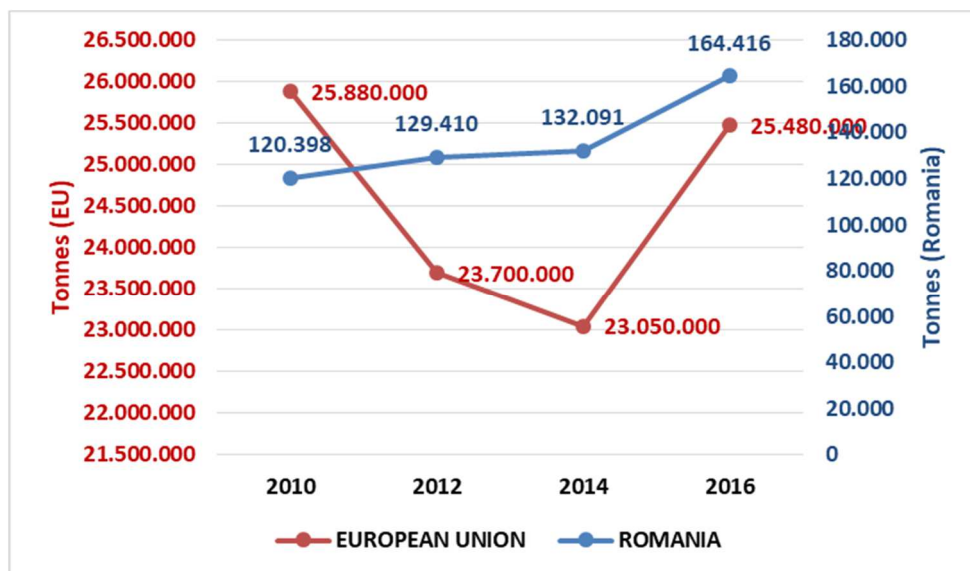


Figure 6: Evolution of food waste in the European Union and Romania (tonnes)

Source: own data processing <https://ec.europa.eu/eurostat>

Figure 6 compares the evolution of scattered food quantities as their volume cannot be compared. In the case of total food waste (EU level), there is a decreasing trend over the period 2010-2014, and in 2016 it is close to the initial situation, given that

another state (Croatia) joined in 2013, and this can be noticed later in the level of food waste. On average the growth rate was negative, respectively -0.51%, maintaining the character constant in this case too.

In Romania, the situation is slightly different, in the sense that there is an increase in the quantities of scattered food, respectively, on average the growth rate of 11%. If in 2010 there was about 120,000 tonnes of waste, in 2016, food waste grew by 36.5%, reaching about 164,000 tonnes. This increase in food waste can also come on the backdrop of economic growth, and on the increase in income earned by the population.

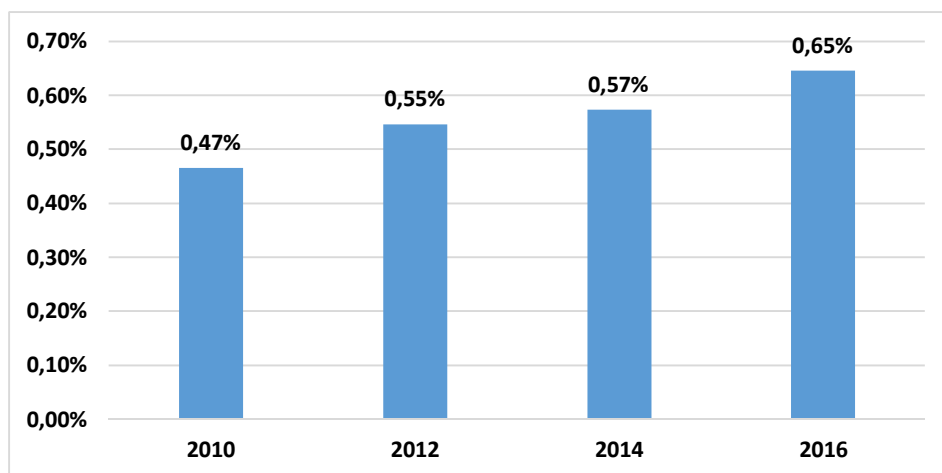


Figure 7: Share of the amount of food waste from Romania in the European Union
Source: own data processing <https://ec.europa.eu/eurostat>

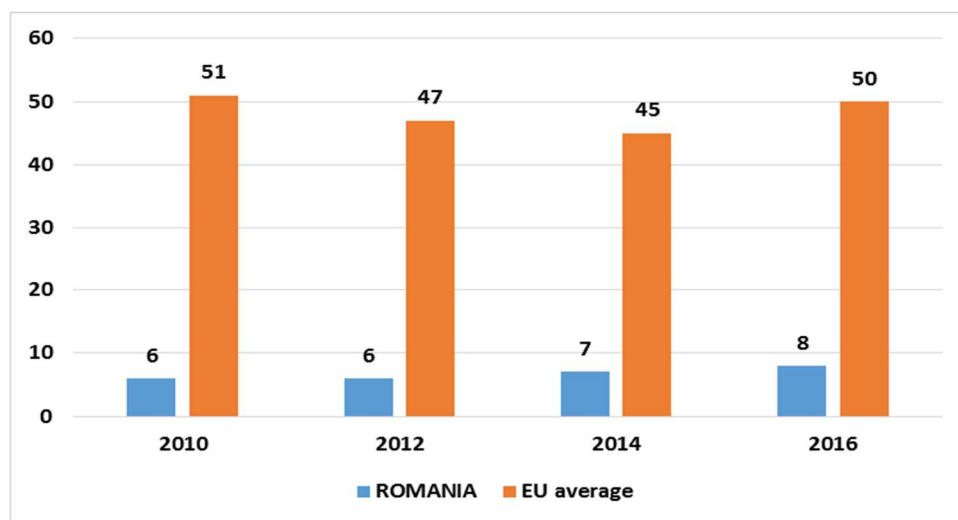


Figure 8: Evolution of food waste per capita in Romania and the EU
Source: own data processing <https://ec.europa.eu/eurostat>

As expected, after analysing the quantities, and the share of Romanian food waste in the European one shows an increasing trend, with a rhythm even worse, of 11.5% biannual, given on the one hand by the increase of the quantities, and on the other hand by the reducing of the total quantities at EU level; thus, if in 2010 Romania wasted about 0.47% of the total of 25.8 million tonnes of scattered food, in 2016 it wiped 0.65% of the total.

Following the analysis of the quantity of food scattered at a total level, both in Romania and in the European Union, the evolution of the average per capita quantities of scarce food can be determined.

At the European Union level, the evolution trend of per capita food waste has kept the trend of total quantities, thus falling in the first part of the period from 51 kg per capita to 45 kg per capita, and in 2016 it increased to the level of 50 kg per capita, 1 kg less than at the beginning of the period.

Likewise, in the case of Romania, the evolution of food wastage per person followed the trend of the total quantity at the national level, thus increasing from 6 kg per capita to 8 kg per capita. Realizing a weight, this is different from the quantity analysed, so a Romanian scatters food 6.2 times less than the average of any European.

Thus, if in 2012 there were spent about 284 euros per capita on food waste, it turns out that in 2012 for one kilogram of wasted food was spent about 6 euros.

7. Conclusions

This paper was aimed at analysing food losses in Romania, both in terms of current status and evolution, in comparison with the European Union. As a result of the analysis, it can be concluded that generally the trends of scattered quantities are decreasing, so in Romania there was a 11% annual drop in the waste quantities, but it should be taken into account that the analysis period covered both, accession and pre-accession periods, when additional efforts have been made at national level to comply with EU standards and norms. As far as the quantities scattered in the European Community are concerned, we can conclude that they are constant, being a positive aspect, considering the Community has increased since 2014, registering the 28th member in 2013. This was noteworthy when food waste was analysed at EU level, registering a sudden increase at that time, while previously decreases were recorded. The amount of food wasted in Romania increased regarding the income, but considering the average quantity wasted per capita, Romania is below the Community's average.

As a result of this research, we see that food waste raises major problems at national and European level. The authorities' desire to solve this problem is noticed, and the steps towards resolving it are constantly taken, but it is extremely difficult to estimate the time when food waste will be reduced to such an extent that a change for the good is noticed. Food waste is the kind of problem that has many solutions, from producer to consumer, but these solutions are hard to implement because we are talking about products that are altering in a short span of time. Thus, however effective the measures proposed by the authorities to reduce food waste are, they are struggling with a factor unaware of efforts, time.

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WAGE INEQUALITY DECOMPOSITION OF ROMANIA

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Abstract: *Income inequality has risen during the last decades, thus making its way into the agenda of decision makers. Effects of increased income inequality include negative effects on economic development and slowing down poverty reduction. Nowadays, drivers and effects of income inequality are still under debate and studies consider all types of income sources for analyses. An important income source for individuals represents wage earnings. While some research papers on income inequality concern the household income inequality, other research works regarding labour market study the wage inequality. This paper studies wage inequality of Romania by types of employers (for example state/public, mixed or private) for the 2008-2012 period. The study reveals that change of wage earnings inequality across the period considered can be due to within-group inequality and within-group change in population share.*

Keywords: *wage inequality; mean log deviation index; decomposition; public-private income gap*

JEL Classification: *D31; D33; J31I*

1. Introduction

Income inequality analysis considers various type of income, for example, gross and net wage earnings, wage hourly earnings, household income, economic activity based income and individual income (Chivu et al 2015, Belfield et al. 2017, Carvalho and Rezai 2015).

Despite a decrease of income inequality between countries at global level, income inequality within countries have increased (Haller et al. 2015). Some consequences of increased income inequality are the growth of social costs, high social erosion, and a negative effect on economic development (Dabla-Norris et al. 2015, Barros et al. 2015).

In a series of papers, it was shown that wage earnings inequality plays an important role in the larger context of the income inequality of a society (Fields and O'Hara, 1999, Fields, 1979, Antonczyk et al. 2010, Baumgarten, 2013, Fields, 2003). The reason behind this fact is that for most individuals the only type of income is a wage earning (Fields, 2004).

In the literature, some authors attribute the increase or decrease of wage inequalities to the individual characteristics of the workers, as well as of the jobs. However, these are not the only factors influencing the wage inequalities, for example, other factor can be technological changes (Berman et al., 1994) or changes in the organization of production (Peck, 1992, Storper and Scott, 1990).

In this paper, we analyse the wage inequality of Romania for the 2008-2012 period considering decomposition of change of wage inequality taking as groups different companies and institutions (state, mixed or private owned, and not only).

Public-private wage inequality plays an essential role in a society, along with the public-private wage gap. The wage differentials between public and private sector workers has been studied intensively during the last decade, an important role having labour market unions (Foguel et al., 2000, Card, 2001, Melly, 2005, Katz and Krueger, 2012, Voinea and Mihaescu, 2012, Ramos et al. 2014)

This paper is organized as follows. Section 2 presents the methodology used, while Section 3 discusses the wage inequality of Romania. Section 4 concludes the paper.

2. Methodology

In this section, we present the methodology used in the paper, which is based on mean logarithm deviation measure and its decomposition into four components. The mean log deviation index is an entropy based inequality measure, being more sensitive to changes in the upper tail of the income distribution for larger positive values. This index is estimated from grouped data using the method introduced in 2016 by Von Hippel et al. The software used is R.

2.1. Data

The analysis is based on grouped data provided by the National Institute of Statistics of Romania (INS). The data are composed of 11 wage earnings categories by types of employers: state/public, majority state (over 50%) and majority private (over 50%) (in other words, mixed companies), Romanian, cooperative, nongovernmental organization, foreign and public of national and local interest. These 8 types of employers represent the groups considered for decomposition of the mean log deviation index of wages. The data are provided by INS for the 2008-2012 period. The grouped data represent the base gross wage (in RON) for month October for each year. In Table 1, we displayed the data for Romania for October 2012. From Table 1, we notice that 88.13% of the employees had a base gross wage below 3000 RON, while 35.41% of employees had a base gross wage below 1000 RON.

Table 1: Base gross wage in October 2012, in Romania, grouped based on income bins

Bin	Minimum	Maximum	Employees	Share
1	0	800	642105	17.61
2	801	1000	648600	17.80
3	1001	1500	864776	23.72
4	1501	2000	574020	15.75
5	2001	3000	482974	13.25
6	3001	4000	190942	5.23
7	4001	5000	92214	2.52
8	5001	6000	47115	1.29
9	6001	7000	29356	0.80
10	7001	8000	20817	0.58
11	Over 8000		52142	1.43

Source: INS

2.2. Estimating Income Inequality with Grouped Data

Estimation methods for grouped data were introduced due to the fact that income data are often given using this format. These type of data can be used for income segregation of individuals among neighbourhoods. For these areas, individual incomes are rarely given, rather grouped or bin data are available. In this paper, we estimate wage inequality using the multimodel generalized beta estimator (MGBE) and robust Pareto midpoint estimator (RPME), both developed in R. It is worth mentioning that these two methods usually produce very good estimates of the mean and Gini coefficient, but poor estimates of the MLD index (Von Hippel et al., 2016). The estimated Gini coefficient for the wage inequality in October 2008 in Romania is 37.80, while the estimate for October 2012 is 37.28, indicating a slight decrease of the wage inequality.

2.3. Decomposition of Mean Log Deviation Index

The mean log deviation index (MLD), also known as second Theil index is defined by:

$$I_0 = \frac{1}{n} \sum_{i=1}^n \log\left(\frac{\mu}{x_i}\right)$$

where x_i represents the income of individual i , and μ the mean income of the population composed of n individuals. The MLD index can be approximately decomposed into changes in within subgroup inequality, changes in the population shares on the 'within group' and between group and relative changes in the subgroup means (Mookherjee and Shorrocks 1982). The decomposition is given by:

$$\Delta I_0 = \sum_j s_j \Delta I_{0,j} + \sum_j \Delta s_j \bar{I}_{0,j} + \sum_j \Delta s_j (\bar{\lambda}_j - \log \bar{\lambda}_j) + \sum_j (\bar{\theta}_j - s_j) \Delta \log \mu_j$$

where s_j represents the population share of group j , Δ is the difference operator from time t to time $t+1$, $I_{0,j}$ is the MLD within group j , μ_j is the mean wage in group j , $\lambda_j = \mu_j / \mu$ where $\mu(t) = \sum_j s_j(t) \mu_j(t)$ and $\theta_j = \lambda_j s_j$. The bar over a variable indicates an average value of start and end period values, for example $\bar{s}_j = \frac{1}{2} [s_j(t) + s_j(t+1)]$.

3. The Labour Market and Wage Earnings

The labour market of Romania underwent certain changes during the transition from a communist society to a market based society. During the process of privatization, restructuring and closeout of multiple state firms the structure of the employment has changed with more people starting to work in the private sector (Cindrea 2007). For the 2008-2012 period, this can be observed in Table 2. While in 2008, the private sector, counted for 67.73% of employees, in 2012 the percentage increased to 70.37%. The state-companies accounted for 7.25% of employees in 2008, which

reduced to 6.05% in 2012. In this paper, we try to quantify the effect of structural change of private-public employers, and not only, on the change in wage inequality of Romania for 2008-2012 period. The MLD index of the wage inequality for the period considered by type of employers is displayed in Figure 1.

Table 2: Structure of labour market in 2008, 2010 and 2012, by forms of ownership

Ownership/Year	Share of public employment (%)		
	2008	2010	2012
State	7.25	6.62	6.05
Majority State	0.95	1.34	1.13
Private Majority	3.54	2.85	2.32
Romanian	57.21	56.13	57.61
Cooperative	0.97	0.88	0.62
NGO	0.38	0.49	0.42
Foreign	9.17	9.54	11.69
National and local interest	20.50	22.11	20.12
Public	27.75	28.74	26.17
Private	67.73	67.06	70.37
Mixed	4.50	4.20	3.46

Source: INS, Author's calculations

Table 3: Decomposition of mean log deviation (x 100) in wage earnings by forms of ownership for the 2008-2012 period in Romania

Period	MLD at start of period	Overall change in MLD	Within group inequality	Within-group changes in population share	Between group changes in population share	Between group inequality
2008-2010	20.804	-2.55	-2.63	0.07	0.00032	0.00097
2010-2012	18.254	2.43	2.12	0.31	0.00119	0.001104
2008-2012	20.804	-0.1167	-0.46	0.34	0.0007	0.0028

Source: Author's calculations

The wage inequality of state companies increased slightly during the short period from 9.059 in 2008 to 10.314 in 2012, while the wage inequality for foreign companies decreased from 27.032 in 2008 to 26.860 in 2012, being notably higher. A higher wage inequality is also attributed to the Romanian private-owned companies (23.112 in 2008 and 22.117 in 2012).

Looking across the wage earning distribution, changes in wage inequality within employees grouped by type of companies (state, foreign, mixed etc.) acted to decrease the overall MLD by 0.46. However, within group changes in population share acted to increase the MLD value by 0.34 (Table 3). This means that structural change in the private-public labour share may have played a role in increasing wage inequality in Romania for the 2008-2012 period. And, just as income inequality within countries contribute to global inequality, so thus the wage inequalities of employees from different companies contribute to wage inequality. In 2008, the absolute wage gap (defined as the difference of mean wages) of public-private sectors was 184 RON, which reduced to 132 RON in 2012.

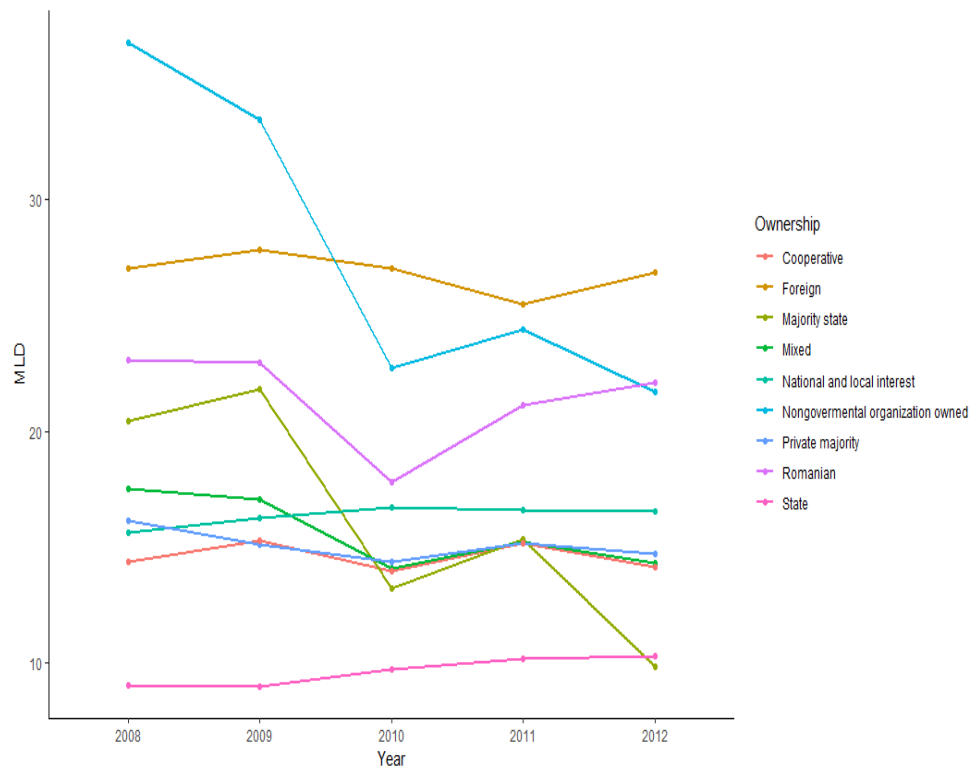


Figure: Mean log deviation inequality measure of wage earnings by type of employers for the 2008-2012 period in Romania
Source: Author's calculations

4. Conclusion

Structural changes in labour market share of different companies play an important part in the structure of wages of a society. The labour market of Romania underwent certain changes during the transition from a communist society to a market based society with more people starting to work in the private sector (70.37% of employees worked in the private sector in 2012). These changes have intensified after Romania became a member of the European Union in 2007. Considering these changes, a natural question that arises is "How all these changes effected the wage inequality of Romania?". Using grouped wage data, in this paper, we estimated the wage inequality of Romania for the 2008-2012 period based on mean log deviation index, which decreased slightly from 20.804 in 2008 to 20.68 in 2012. In this paper, we showed that change in wage inequality can be linked to within changes in wage inequalities of employees from different companies categorized by type of ownership. The decomposition applied of the MLD index revealed that wage inequality within employees grouped by type of companies appeared to decrease the overall MLD by 0.46. However, within group changes in population share acted to increase the MLD value by 0.34. Future work is required on how structural

changes in labour market share effect wage inequality based on new estimates and indicators.

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ICSID CASES IN WHICH ROMANIA HAS BEEN INVOLVED

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Abstract: *The present paper aims to make a short presentation of the relation between Romania and the International Centre for Settlement of Investment Disputes – ICSID, with special focus on the damages that Romania was ordered to pay to the claimants, by the ICSID Tribunal. ICSID was founded by the World Bank as a special organism to protect the foreign investors and their properties in the host state. After the recognition of ICSID by the states, the foreign investment flow grew and the number of disputes starts growing as well. Romania ratified the ICSID Convention in 1975. If one party is in breach of the Bilateral Investment Treaty or some other legal provision stated in international law, it will have to pay damages to the other party. The first arbitration request filed against Romania at ICSID was registered in November 2001 by Noble Ventures and the last one registered until now is in August 2018 by Alverley Investments Limited and German Properties Ltd. Until now, there were 15 cases registered at ICSID, in which Romania is the respondent. Ten of them were concluded and five are still pending. Until now, the proportion is in Romania favour, only in 30% of the cases Romania was ordered to pay damages, in 70% of the cases the claims were dismissed or the proceedings discontinued. The 3 cases where Romania had to pay damages were about some commitments that Romania undertook when the investments were made and then did not succeed to keep the commitments. In one of the cases, Romania granted some incentives for disfavoured areas and insured the investors that will maintain those incentives for a period of 10 years, but revoked prematurely them. In other case Romania made an agreement for 49-years concession over a land but, again, prematurely revoked the agreement. And, in the last case where Romania was ordered to pay damages, Romania promised to restructure the debts of Socomet, but failed to do so. The present paper is briefly describing those cases in which Romania was the Respondent.*

Keywords: *ICSID; damages; foreign direct investment; international disputes.*

JEL Classification: *F51; F37; K22.*

1. Generally Introduction

The International Centre for Settlement of Investment Disputes Convention entered in force in October 1966, after being ratified by the first 20 states. In present it is ratified by 154 states. For Romania, ICSID Convention entered into force in October 1975. The scope of this Convention was to assure protection for the foreign investors and their properties in the host state. After the recognition of ICSID by the states, the

foreign investment flow grew and the number of disputes start growing as well. This was the subject of a previous paper published by one of the authors in November 2017

Nowadays, Romania has 5 cases pending at ICSID and 10 cases already concluded, as can be seen in the table below.

Table 1: ICSID Cases in which Romania was the Respondent

Case No.	Claimant(s)	Respondent(s)	Status
ARB/18/30	Alverley Investments Limited and Germen Properties Ltd	Romania	Pending
ARB/18/19	LSG Building Solutions GmbH and others	Romania	Pending
ARB/16/19	Nova Group Investments, B.V.	Romania	Pending
ARB/15/31	Gabriel Resources Ltd. and Gabriel Resources (Jersey)	Romania	Pending
ARB/14/29	I. M****, V. M**** and others	Romania	Pending
ARB/14/28	Alpiq AG	Romania	Concluded
ARB/12/25	Marco Gavazzi and Stefano Gavazzi	Romania	Concluded
ARB/10/22	Ömer Dede and Serdar Elhüseyni	Romania	Concluded
ARB/10/13	Hassan Awdi, Enterprise Business Consultants, Inc. and Alfa El Corporation	Romania	Concluded
ARB/01/11	Noble Ventures, Inc.	Romania	Concluded
ARB/07/13	S&T Oil Equipment & Machinery Ltd.	Romania	Concluded
ARB/06/3	The Rompetrol Group N.V.	Romania	Concluded
ARB/06/1	Spyridon Roussalis	Romania	Concluded
ARB/05/20	I. M****, V. M**** and others	Romania	Concluded
ARB/05/13	EDF (Services) Limited	Romania	Concluded

Source: <https://icsid.worldbank.org> date: 25.03.2019.

Each of these cases will be subject of a further discussion in the next paragraphs.

2. Cases Presentation

The ICSID cases in which Romania had been the Respondent can be split in two categories: concluded and still pending. The pending cases in this moment are in number of 5, but any day, there can be a new arbitration request registered at ICSID. As regarding the concluded cases, there were 3 cases out of 10, in which Romania was ordered by the ICSID Tribunal to pay damages, after they concluded that Romania breached a provision from the Bilateral Investment Treaty (BIT). There was

a case, out of the 7 cases in which Romania did not had to pay damages, which was discontinued from lack of payments, and in this case the Tribunal did not gave an opinion whether Romania was or not in breach of any legal provision.

The methodology used requires comparative study of relevant documents for the analysis of the cases background and Tribunal findings, methods of analysis and synthesis, deduction and analogy.

2.1. Cases that are Still Pending

We will make a briefly discussion of the pending cases, since there is no conclusion presented by the ICSID Tribunal yet.

First case, from the list of pending cases, is filled by Ioan and Viorel Micula and their companies, in November 2014, based on an investment agreement signed in 2002. They are requesting 2.3 billion euro. The second case is filled by Gabriel Resources for losing the mining contract from Rosia Montana, requesting 4.4 billion dollars. Nova Group Investments, a financial and insurance company from Netherlands, ask for 330 million euro from the Romanian Government. LSG Building Solutions, a Renewable energy generation enterprise filled an arbitration request against Romania in June 2018 and also in August 2018, Alverley Investments Limited and German Properties, requested arbitration against Romania in a commercial real estate development dispute.

2.2. Cases Concluded

The concluded cases are split in two categories: one in which Romania had to pay damages and another one in which the tribunal concluded that Romania did not breach any legal provision.

2.2.1. Cases Concluded in which Romania did not Breach any Legal Provision and/or did not had to pay Damages to the Foreign Investor

EDF_v_Romania:

At 14 June 2005, EDF registered the arbitration request against Romania, in a dispute regarding the duty-free services rendered by EDF in a joint venture, in the Constanta International Airport and Timisoara International Airport.

At 5 September 2002, Romania passed the Government Emergency Ordonance No 104 that revoked the duty-free licence and this led to the discontinuance of EDF activities.

EDF considered that Romania breached the protection assured to the foreign investors by signing the BIT. Romania denied any such violations. The ICSID Tribunal, after analysing the facts presented by the parties had concluded that Romania did not breach any legal provision and dismissed the Claimant requests. Moreover, the Claimant was ordered to pay to the Respondent 6 million USD for legal fees and other costs.

Spyridon Roussalis_v_Romania:

Spyridon Roussalis, a Greek citizen, owned 100% the Romanian legal entity called SC Continent SRL. In 1998 there was an invitation for tender for the shares owned in Malimp SA by AVAS - 70% of Malimp. Continent won the tender process with an offer of 32,591 ROL per share and a proposed capital contribution of 1.4 million USD in the next 2 years, and the name of Malimp was changed to SC Continent Marine

Enterprise Import Export SA. SC Continent SA issued new shares in favour of SC Continent SRL, considering that they complied with their obligation of capital increasing. The Claimant consider that Romanian Government's acts drove to an indirect expropriation or at least to a substantial impairment of its investment. Romania denies such accusations, arguing the post-acquisition investment made by SC Continental SA. The ICSID Tribunal dismissed the Claimant's requests and ordered him to pay to the Respondent 60% of the legal fees and expenses, in amount of 6 million EURO and 217,290 USD.

Rompetrol_v_Romania:

In 20 December 2005, ICSID received an arbitration request against Romania, registered by Rompetrol for extraordinary and unreasonable investigation against the company and its management and discriminatory and arbitrary treatment of the company. The Claimant purchased the shares of Rompetrol Rafinare SA, a privatised Romanian company which owns and operates an oil refinery and petrochemical complex. The ICSID Tribunal rejected the claims for moral damages and did not order the Respondent to pay any damages even if it found that the Respondent's acts of arresting one of management member of Rompetrol was in breach of the Article 3 of the BIT, but the Tribunal could not identify the damage produced by that act. In its final decision the Tribunal concluded that each party should bear its own costs of arbitration and no damages were awarded.

Omer Dede and Serdar Elhuseyni_v_Romania:

The dispute concerned SC IMUM SA, a Romanian agricultural equipment company, owned by the Claimant who claims that the AVAS and the Romanian Government have taken over their shares in the company. Romania had requested a bifurcation of the process, then the Claimants informed that they will not continue the arbitration against AVAS but only against the Government. The ICSID Tribunal concluded that it lacks jurisdictions to hear those claims so the case was dismissed. Each party should bear its own costs.

S&T Oil Equipment & Machinery Ltd._v_Romania:

This case was discontinued at 16 July 2010 for non-payment of the required advances.

Noble Venture_v_Romania:

Noble Ventures, an American company specialized in business consultancy for steel industry brought Combinatul Siderurgic Resita from the Romanian State Ownership Fund (SOF) during the privatization process in June 2000. Combinatul Siderurgic Resita was in big debt to other Government agencies and also needed high investments in order to continue its operations. SOF did not had the authority to restructure those debts and it only could promise Noble Ventures to assist them in this process. After the regime change in Romania politics, SOF was dissolved. Noble Ventures were not able to obtain the restructure for their debts and they did not make the investment needed so the Combinatul Siderurgic Resita had to close down. In this situation, Noble Ventures considered that Romania had breached the BIT, did not give them fair and equitable treatment, protection and they even considered that Romania had expropriated them. The ICSID Tribunal, after analysing all the documents and the facts presented by the parties concluded that Romania did not

breach any legal provision, so no damages were awarded and each party had to bear its own costs.

Alpiq AG_v_Romania:

Alpiq AG, a swiss company owning SPEEH Hidroelectrica SA, requested arbitration at ICSID against Romania for not respecting their rights during the insolvency procedure of SPEEH Hidroelectrica SA. Alpiq was requesting 450 million USD as damages. The ICSID Tribunal concluded that Romania was not in breach so no damages were awarded.

2.2.2. Cases Concluded in which Romania Breached at least one Legal Provision and was Ordered to pay Damages to the Foreign Investor

*I. and V. M*****_v_Romania:*

The present dispute arose in the context of Romania offering incentives for investment in disfavour areas and then redrawing those incentives. The Claimants had made substantial investments in one disfavour area of Romania in reliance on those incentives and the fact that they will remain for 10 years. The Claimants claimed that Romania, in breach of the BIT, prematurely revoked those incentives. The ICSID Tribunal found that Romania did breach the BIT provisions so they ordered the Respondent to pay to the Claimants 376 million RON and interest at 3-month ROBOR plus 5%, compounded on a quarterly basis.

Hassan Awdi_v_Romania:

Hassan Awdi brought Rodipet, a Romanian press distribution company during the privatisation process. In this agreement both parties undertook commitments. Romania would extinguish tax liabilities and other debt owed to it by Rodipet and grant to Rodipet a maximum of a 49-year concession over land housing press distribution points. The dispute arose when Romania revoked the law granting the land concession to Rodipet and took control over Claimants' indirect shareholding in the company. The ICSID Tribunal found that Romania did breach the BIT provisions so they ordered the Respondent to pay to the Claimants 7.5 million EURO and interest at EURIBOR plus 2%, compounded on a semi-annually basis.

Marco Gavazzi and Stefano Gavazzi_v_Romania:

Marco and Stefano Gavazzi brought 70% from shares of Socomet SA, a Romanian steel company during the privatisation process. In this agreement both parties undertook commitments. Romania would reschedule or forgive the debts of Socomet and the investors would make some new investments. The Claimants alleged that Socomet's debt was not restructured and that its bank accounts were frozen to cover the debt. The ICSID Tribunal found that Romania did breach the BIT provisions so they ordered the Respondent to pay to the Claimants 1.9 million USD.

3. In Conclusion

The foreign investments' flow was directly influenced by the ICSID settlement, offering protection for investors and their properties. Romania ratified the ICSID Convention in 1975. From the total number of cases against Romania, 10 were already concluded, out of which in 3 cases Romania was ordered to pay damages to the investors, and in 7 cases the claims of the investors about damages were

dismissed. The 3 cases where Romania had to pay damages were about some commitments that Romania undertook when the investments were made and then did not succeed to keep the commitments: one was about incentives granted for disfavoured areas, one was an agreement for 49-years concession over a land and one about restructuring debts. As a conclusion of the facts presented in the present paper, we can say that the states should properly consider all the aspects implied before making any commitments to foreign investors because the commitments will bind them and create obligation to pay damages if they are not completed.

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THE TRANSPORTATION SAFETY AND SECURITY – POSSIBLE ANCHORS OF PROSPERITY IN THE AGE OF GLOBALISATION

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Abstract: *If growth and economic development so far occupied the first place in the concerns of national economies, global phenomena and the new economy have led to the focus on preoccupations to two other concepts, well-being, and prosperity, which consider a multitude of indicators more or less quantifiable. The Gross Domestic Product, as well as the average income of the population, can provide information on the level of development. The Legatum Prosperity Index has among its variables the safety and security component, which, as the index shows, transmits information on the level of prosperity. A hypothesis considered is that the transportation sector has an important role to play in generating prosperity, so it is worth analyzing the average revenue, passenger numbers of one of the safest transportation modes according to EU transport figures - Statistical pocketbook 2018 – the rail transportation – in the Central and Eastern European countries. Therefore, there is a possibility of a correlation between the variables in order to explain a small part of the phenomenon of prosperity from the perspective of safety and security, an indicator that should be included when talking about the quality of life.*

Keywords: *prosperity; transportation infrastructure; safety and security; quality of life.*

JEL Classification: *R10; F52; F60.*

1. Introduction

The development degree of the society could be defined by comparing the economic, political and social conditions. There are outcomes that take a look at quantitative and qualitative aspects in terms of human capital (i.e. income and education) and physical capital, such as infrastructure (i.e. various networks of utilities, transportation, telecommunication etc.). If until now public policy documents focused only to physical capital, new trends are stressing the importance of the human capital and its influence over the evolution of the society. One issue raised by Čadil et al. (2014) is the problem of over-education in hand with unsuitable education structure that seems to be the most important problems of human capital in EU today. Galor and Omer (2004) also mention that there can be no "confrontation" between physical and human capital, as there is a permanent interaction between the two for economic development to be more than a

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quantitative evolution of the indicators. The infrastructure cannot be efficient without operations and maintenance carried out by human factors, while economic activities cannot be deployed without being fostered by the infrastructure. But equally important for ensuring prosperity are both safety and security for citizens. A stable and secure environment requires both for the mobility of people and for attracting investment and supporting economic growth. One interest finding is in a paper published by Benhabib and Spiegel (1994) according to which a country which lies below the 'leader nation' in technology but possesses a higher human capital stock, will catch up and overtake the leader in a finite time period. Growth performance of any country is dependent on government policies to allocate resources for different purposes, consumption and investment, Siddiqui (2008) also states. Some of the attributes of prosperity are safe living conditions and personal safety. Thus, the transportation sector, a part of an economy, is also a common tool for development, especially in a global economy where opportunities have increased with the mobility of people, goods, and information. As Caballé and Santos (1993) underline, the interaction among the technology of human capital accumulation and agents' preferences will determine endogenously the economy's rate of growth.

2. A Bilateral Relationship: Transportation-Economy

There is a cyclical relationship between transportation and economy because the physical capacity to move the goods from one side to another has to be done at the optimal costs to further encourage this type of mobility. This actually means to draft the routes in a certain way that will enable extensive or new interactions in the economic sector. It is also important to enhance the performance over time, especially reliability, but also to reduce the loss or different damages, which will lead to better use of transportation in the case of goods and passengers that will be carried swift and with fewer or no delays. A huge impact concerns the economy of scale in all the stages of the goods (production, distribution, and consumption), that will lead to wider market access.

Measuring the return on investments in various transportation projects aims at highlighting the direct benefits of users and the economic impact due to cost reduction. Transportation plays an important role in the economy, especially in changing economies, and investment is seen as a driver of development. The impact is reflected in economic growth, export facilitation, job creation and economies of scale. Transportation investments, particularly those related to transit, encourage the formation of clusters and agglomerations in many ways. For example, in large metropolitan areas, the pace of growth is slowing down because of car journeys in a limited space. Planning efficiently can avoid constraints and encourage the formation of clusters, allowing more to get closer to high-density developments. Moreover, investment in transportation also encourages the creation of clusters by bringing together various entities, contributing to improved productivity. Last but not least, efficient transportation reduces travel time between suburbs, where part of the workforce and areas in the city center live.

When there is an improvement in transportation conditions (travel time reduction, infrastructure improvement), accessibility for people and companies to jobs, services, goods and activities increases, which increases productivity. It also improves the delivery time of the goods (it will reach the destination faster,

increasing the number of daily trips, improving efficiency). An increase in worker and business productivity can increase the productivity of the metropolitan area. Another contribution brought by improving transportation is the increase in available labor. It may be due to the construction of a new rail transit line that allows employees to reach previously inaccessible jobs. At the same time, access to job options also increases and the attractiveness of the area is also increased. Millennials pay increased attention to mobility and transit areas, so they represent a critical workforce. New options and investments in transportation infrastructure are also a factor in the business sector. Multimodal facilities open new markets for companies looking for locations capable of meeting transportation needs. According to Eurostat, the highest numbers of passengers transported by rail in the EU in 2017 are in Germany, the UK, and France with almost 3 Bn., 2 Bn. and 1.5 Bn. passengers transported while countries such as Romania and Bulgaria transported in the same year almost 70 M and 20M respectively, as presented below. That is a huge discrepancy, mostly if we are also considering the population density of each country in Table 1.

Table 1: The number of passengers transported by rail and population density in the EU, 2017

Country	Thousands of passengers transported by rail	Population Density (persons / km ²)
Germany	2,831,443	234
United Kingdom	1,757,359	272.4
France	1,277,479	105.5
...
Romania	69,056	83.6
Bulgaria	21,195	64.3

Source: Eurostat

The fixtures presented in Table 1 are not accidental as the first three countries in the top started to increase the using of railways at least since 2002, while countries from Eastern Europe were neglecting this mode of transport.

In the case of clusters, access to suppliers and customers becomes easier and faster for materials, which has a positive impact on freight logistics and delivery schedules. This reduces transportation and inventory costs while increasing productivity and profitability. Companies can expand their market access and customer base, which increases their competitiveness. Improving access to markets, goods, services, employment, housing, healthcare, and education, reducing relocation costs, projects can help increase productivity and development. If the benefits of time economy are essential, the traditional method of measuring seconds becomes inadequate. It is necessary to quantify the gains obtained as a result of the improvement of transit (Dowell, 2017).

In any case, transportation is a necessary vector, but not enough to overcome the obstacles to economic development.

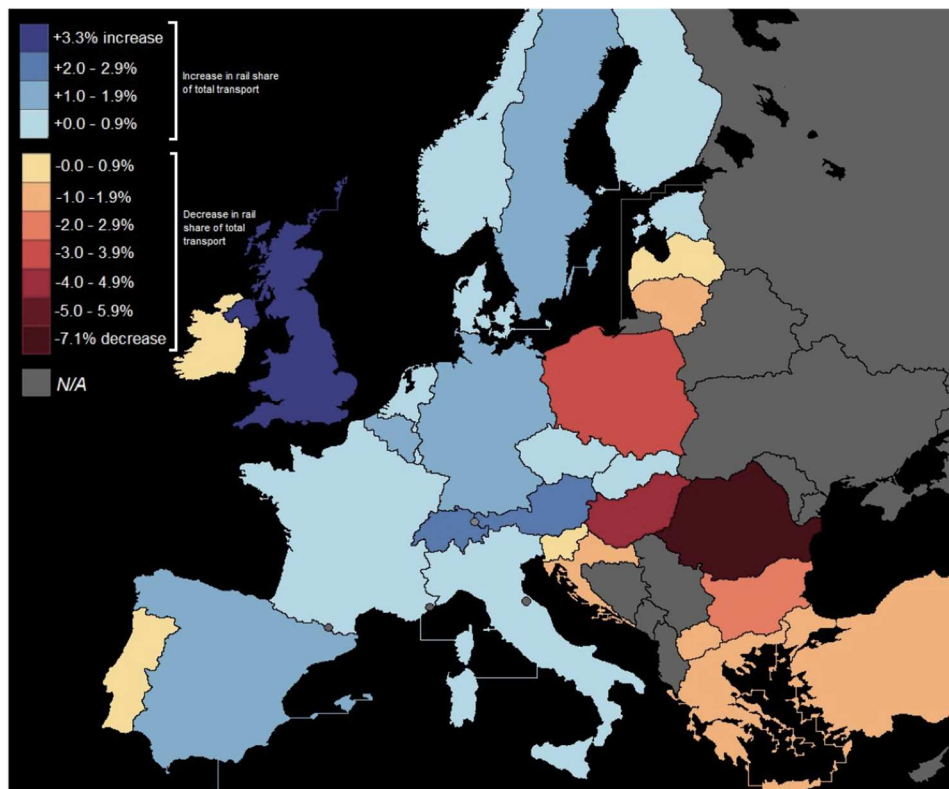


Figure 1: Change in rail as a mode of transport, 2002 - 2014

Source: Eurostat

3. Safety and Security, a Pillar for Prosperity

Phenomena such as technological advancement and globalization have led to changes in economic development. If GDP was considered to be the main indicator of growth and economic development, today's concerns for more rigorous analysis determine the focus on both indicators of quality of life and aspects of people's choices.

The Legatum Prosperity Index offers an insight into how prosperity fluctuates across the world and is concerned with the safety and security analysis, one of the 9 pillars on which prosperity is based, followed a downward trend globally (Stroud, 2018). Under the umbrella of the Safety and Security pillar, there are variables such as national security, personal safety, and security of living conditions.

National security refers to ways in which people are protected from conflict and violence (e.g. riots, torture, disappearances, and political prison). Personal safety is intended to respect the security of the property and of the person (theft, homicide, and security when walking unaccompanied). Security for living conditions considers safety and secure day-to-day living (providing housing and food, but also a secure living environment and infrastructure). As it can be observed in Figure 2, Norway scored the highest place in the ranking, taking into consideration safety and security pillar of the Legatum Prosperity Index while Iraq can be considered the most

insecure country in the world from the perspective of the same pillar. With a score of 80.98, Norway is the first even when considering the aggregate of all 9 pillars: economic quality, business environment, governance, education, health, safety and security, personal freedom, social capital, and natural environment. In the lower part of the ranking even if Iraq has the lowest score when it comes to safety and security pillar, the average indicator places Afghanistan on the last position with an inglorious 36.92. From a broad perspective, one can observe that Europe has 7 countries in top 10, sharing the leaderboard with the Asian continent while Africa becomes predominant in the very bottom rows of the standings.

SCORE	COUNTRY		SCORE	COUNTRY	
80.98	 Norway	+	94.26	 Iraq	+
72.79	 Japan	+	42.47	 Afghanistan	+
73.73	 Singapore	+	36.92	 Central African Republic	+
72.93	 Hong Kong	+	39.44	 Democratic Republic of Congo	+
78.95	 Ireland	+	41.65	 Nigeria	+
74.10	 Malta	+	50.10	 Yemen	+
78.99	 Netherlands	+	39.49	 Sudan	+
76.64	 Austria	+	41.52	 Venezuela	+
79.33	 Denmark	+	50.45	 Libya	+
78.47	 Iceland	+	48.90	 Philippines	+
			61.32		

Figure 2: The Legatum Prosperity Index in 2018, Safety and Security pillar (highest ranked countries in the left side with green, lowest ranked countries on the right side with red)

Source: Legatum Institute

4. Conclusion

A possible correlation between the transportation sector and prosperity is that as a state you cannot become prosperous without a well-organized network of transportation. And this also has a consequence when speaking of the quality of life of the endogenous citizens. While at EU level rail transportation has been overlooked by most of the countries in favor of the air or road transportation, Germany, UK and France focused on enhancing this type of transport, two examples in this regard being the development of magnetic levitation high-speed trains by Germany and the building of Eurotunnel by UK and France. Romer (1990) captures very well this idea by stating that “human capital levels directly influence the rate of domestically produced technological innovation”. Nelson and Phelps (1966) also state that the “human capital stock affects the speed of adoption of technology from abroad”, so the human capital fosters physical capital.

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THE DIPLOMATIC MISSION AND ITS FUNCTION

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Abstract: *This paper presents issues regarding the diplomatic mission or diplomatic mission and its functions. The international context from a diplomatic point of view, and not only, has prompted us to address the theme of the diplomatic mission and diplomatic functions. In this paper, there is only a general framework on the diplomatic mission and its functions, and in a subsequent paper this subject will be discussed in more detail. The organizational structure of the diplomatic mission is directly influenced by the political situation, the economic issues, the cultural field, the military domain and others. Thus, the division of the departments and the areas of interest is also dictated. The establishment of diplomatic relations takes place through the simultaneous fulfillment of the following clauses: the holding of international legal personality and the competence to sign legal acts; the recognition by both sides of the international legal personality; the existence of the mutual agreement. It is important to note that there is no confusion between the diplomatic mission and its members, as it is a state organ, is a distinct structure. Diplomatic missions carry out their activities in two parts: they relate to the accredited state and also relate to the accredited state. Concerning bilateral diplomacy, the diplomatic mission is divided into the following categories: Embassy, Apostolic Nunciature, Legation, Internunciature, High Commissariat. The most famous diplomatic mission represents the embassy, being also the most important. For example, the Apostolic Nunciature is specific to the Holy Regiment, because besides its diplomatic functions, it also performs ecclesiastical functions. From the point of view of multilateral diplomacy, the diplomatic mission is divided into permanent representations or permanent delegations and permanent missions of an international organization to a state. Thus, the diplomatic mission and its functions are permanently a subject that can always be different depending on the international context.*

Keywords: *diplomatic mission; accredited state; accredited state; mission functions.*

JEL Classification: *K20; N40; O50.*

1. Introduction

The notion of "diplomatic representation" and "diplomatic mission" (although in practice the latter is often used) can be considered synonymous because it represents the same institution. The negotiating function has diminished its importance due to the tendency of countries to seek and adopt common rules through treaties, conventions, and within international organizations dealing with the study of these issues. Until the ratification of treaties and conventions, the

negotiation function was considered "as the most important function and activity of the diplomatic mission and its staff" (M. Anghel, G.Silași, A.D.Crăciunescu, 2015). Negotiation depends largely on the negotiator. It has to possess a number of skills, both professionally acquired and personal. Negotiation involves three stages: pre-negotiation, negotiation itself, and post-negotiation respectively.

2. Diplomatic Mission

Mutual consensus is the foundation of the establishment of diplomatic relations and the existence of permanent diplomatic missions. As a rule, "for the establishment of a diplomatic mission, it is necessary to meet the following two conditions: to have diplomatic relations between the two states and to enter into an agreement between them for the exchange of diplomatic missions" (Anghel, 2011).

It is necessary, therefore, to clarify the two above-mentioned notions: the accrediting state, respectively the accredited state. The state accredited by a diplomat represents the accrediting state, and the state in which a diplomat is appointed constitutes the accredited state.

According to art.70, paragraph 3, letter a, b of the Vienna Convention on Consular Relations of April 24, 1963, the diplomatic mission may, in fulfilling its consular functions, address:

- local authorities in the consular district;
- the central authorities of the State of residence if the laws, regulations and customs of the State of residence or the relevant international agreements so permit.

The existence of the structure of a diplomatic mission is necessary to achieve the functions of the diplomatic mission. Depending on the context, the structure is composed of a person or a limited circle of persons and comprises according to Article 1 of the Vienna Convention on Diplomatic Relations of 18 April 1961 (Anghel, 2011):

- head of Mission;
- members of the mission;
- the members of the mission staff;
- members of the diplomatic staff;
- diplomatic agent;
- members of the administrative and technical staff;
- members of the service staff;
- private service person;

mission locations.

The three classes (Anghel, 2011) to which the Heads of Mission are assigned are listed in Article 14 (1) of the Vienna Convention on Diplomatic Relations of 18 April 1961, as follows:

- ambassadors or envoys accredited to Heads of State and other equivalent Heads of Mission;
- sent, ministers or envoys accredited to the Heads of State;
- charged with business with the Foreign Affairs Ministries.

In Romania's diplomatic and consular corps, according to the Law no. 269 of June 17, 2003, members can obtain the following degrees:

- a) diplomatic degrees: ambassador; minister plenipotentiary; Minister Counselor; diplomatic counselor; Secretary I; secretary II; secretary II; diplomatically attached.
- b) consular grades: consul general; consul; Vice Consul; consular agent.

The existence and necessity of diplomatic missions is justified by the accomplishment of the activities described in the functions of the diplomatic mission. Diplomatic activity depends directly on the level of relations between the two states involved, the political and economic climate.

According to art. (3) of the Vienna Convention on Diplomatic Relations of 18 April 1961, the functions of the diplomatic mission are as follows:

- to represent the accredited State in the accredited state;
- protect in the accredited state the interests of the accrediting state and of its citizens, within the limits allowed by international law;
- to negotiate with the government of the accredited state;
- to be informed by all lawful means about the conditions and evolution of events in the accredited state and to report them to the government of the accrediting state;
- promote friendly relations and develop economic, cultural and scientific relations between the accredited state and the accrediting state.

The function represented the accredited state in the accredited state

The representation function is one of the oldest functions involving the representation of the country concerned by the interests of its country and the establishment of links between states. This concept of representation has a wide scope, since links between countries are diversified and comprise a variety of areas of interest on both sides. "The diplomatic mission no longer represents a head of state or government, but the state as such, acting on behalf of the state which is a subject of international law." (M. Anghel, G. Silași, A.D. Crăciunescu, 2015).

3. The Functions of Diplomacy

Negotiation function:

The American bargaining style is probably the most influential in the world. It is the style that dominates literature and which many people try to copy. It is characterized above all by overflowing personalities who instantly transmit sincerity and warmth, personalities who are confident and secure on them and who have the ease to immediately move to an exuberant conversation. The negotiator enters the confidential negotiation room and speaks affirmatively.

Within American culture, respect is associated with economic success. There is a well-defined tradition: "wheeler-dealing", which refers to the concern to obtain the symbols of material success. The American negotiator, starting with enthusiasm, appreciates this attitude of pursuing economic gain. Its forces are particularly high in the phases of negotiation. He naturally moves rapidly in these phases of negotiation. The way he "plays" implies that other negotiators should be governed by the same rules. He admired those who are experts in dealing with the healing process and those who play the same rules as he. He himself is an expert in using certain tactics to get benefits and expects others to have the same professionalism.

With this type of attitude, focused on the process of collapse, the American negotiator is interested in "packages". A seller expects the buyer to be able to make a balance sheet of the package he / she asks for; on the other hand, the buyer expects the seller to offer a clear package. And I intentionally use the word "package" because it contains something about the product idea and something more about the form in which this product is presented. (Rascanu, 2017).

The German negotiation style looks totally different. Especially the preparation for the negotiations of the Germans is absolutely superb. The German negotiator

identifies the understanding he hopes to do. He identifies the exact form of that understanding. Identifies the issues that they believe should be included in the negotiation. Then he prepares a reasonable offer carefully covering each issue of understanding.

During the negotiation, he will show the elements and offer clearly, firmly and affirmatively. It is not open to the compromise significantly. The negotiation pattern is surprisingly similar to some interpretations of German character: direct, systematic, well prepared, inflexible, and unable to compromise.

It is a very strong bargaining style when practiced by skilled negotiators. His forces are emerging especially at the negotiating stage. Once stated, the offers seem to get a degree of holiness, so the part of the treasury is diminished.

French. French negotiators are recognized for three main characteristics in international agreements: a lot of firmness, the insistence on using French in negotiations, and a negotiating style without a single side. I mean, he prefers to make a sketchy understanding, then an understanding of principle, then establish the title, and so on, covering the entire breadth of the deal; contrasting with the step-by-step approach of the Americans. And, like Gaule, they have a great ability to win by saying "non".

English. They are seen by other nationalities as: amateurs, unlike American professionals; rather poorly trained than well trained; cute, friendly, sociable, agreeable; flexible and receptive to initiatives.

Northern Europeans. North Europe is negotiating much more silently than Americans or Germans. There is some reticence in how socially involved at the beginning of the negotiations. He is silent, speaks slowly, and can easily be overwhelmed in this phase.

He is very open to the statements he makes and is willing to help the other party immediately obtain information about the position he is taking. It is also very good at recognizing creative possibilities and reaching creative decisions.

Finns and Norwegians fall into this pattern; Swedes also fall, but they are more influenced by Americans and Swedish bureaucracy. The Danes tend to have a Scandinavian and a German style.

The reasons underlying these characteristics, in any case for the Scandinavian countries, are not hard to understand: Christian morality, political stability, economies that are largely based on agriculture and fishing. The North European force lies in its frankness and openness in the exploration phase of negotiation, which determines its creative abilities in the next phase. It is not placed on the same level as Americans and Germans in terms of the ability to bid, nor with Americans in terms of the ability to bend, but can be stubborn. To be able to influence it, expect him to explore, be flexible and creative.

Mediterranean culture is primarily warmer. Salutations and social aspects emanate from heat, exuberantly use the posts and gestures. It is difficult to fix discussions at the level of certain agreements or at certain negotiation stages.

In some regions, certain agreements have to be "anointed", this issue of "anointing" is a central theme in the cultures of certain Mediterranean countries. It is regarded as a normal practice and does not have the repulsive character (as for the northern Europeans) of "bribery".

The negotiation approach in these cultures must take into account the types of education we have distinguished; and, at the same time, to take into account the need to "anoint." As no respectable Western company wants to be associated with

the idea of bribe, it is necessary for it to provide a local agency and take care that the agency can handle "anointing".

In the communist era, the approach is usually bureaucratic, sometimes with political tones. The bureaucratic aspect leads to a group of people who are involved in the negotiation. They have obligations to budgets, procedures and objectives that would normally be unknown to the negotiator who comes from another culture and whose significance is difficult to appreciate by the negotiator. The methods, as well as the goals, are bureaucratic. Protocols, systems, rules and bureaucratic procedures must be followed.

In some communist countries, this is imposed by the political system in which it is not unusual for the negotiating team to have a representative to verify the compliance and performance of the other team members. Nor is it despised that the community, in the form of the state, assumes the responsibility of the economic problems. In addition, the interests of community members - ordinary workers - demand that the performance of those who can influence economic success be verified.

Middle East. The Middle East negotiator comes from a tradition of the desert - a tribal tradition in which communities are close and compact, a tradition in which hospitality is the governing force. Time is unimportant: trust is important, and the visitor must gain this trust. The Prophet Muhammad was a warrior and the counter-attack is more respected than the compromise.

The consistency of the negotiation pattern emphasizes the early phases of the negotiations. Social issues - an extended form of climate / ice breakdown - take a long time. During the social "dominant" phase, some occasional aspects of exploration come into question - although sometimes an incident. From this vast, social and easy commercial discussion, mutual respect can emerge and commercial relations can be found. may be terminated.

But before that, be prepared for delays and interruptions. The door is open all the time, and even when negotiations have reached a critical point, a third person can interrupt them to come up with a completely different issue. Of course he will be welcomed and met in the best Arab tradition.

The Indians like to haggle - a typical pie market - and they feel deprived if the negotiations do not include a proper ritual of gossip.

The Chinese negotiator is distinguished by: concern for "façade", specialization, suspicion towards Westerners. The issue of the "façade" is the most important. The Chinese negotiator must be seen negotiating with a person with a key and authoritative position, a person whose executive boarding card is elegantly presented, a person who has an expensive car and a driver dressed in a proper uniform. He must not be forced to lose the image by having to withdraw his words firmly from the negotiations, and we can not maintain our imposing facade if we withdraw a firm statement that we have made. The final understanding must allow him to maintain - or prefer to improve - the perceived image of his knowledge.

The Chinese are suspicious of Westerners. In particular, it dislikes the Western attempts to lead them to political talks. The Chinese are more in favor of their families. A gift for the son (a small gift in which a thought was made, nothing ostentatious) is precious, in contrast to a luxurious business lunch that is useless. (Rascanu, 2017).

Observation and information function:

The observation and information function has different meanings and meanings. There was a confusion about observation activities, espionage, confusion that is caused by the vague delimitation of diplomatic activity and espionage over the means used. "As official means of communication are mentioned: official and official contacts, the cultivation of friendly relations, studying the press and other publications, contacts with other colleagues who are part of the diplomatic corps, contacts with political personalities, etc." (M. Anghel, G.Silași, ADCrăciunescu, 2015).

The function of cooperating internationally:

International cooperation is also an important function, its importance is reflected by its inclusion in the codification convention, demonstrating the interest of states in this direction. Thus, "the entire activity of the diplomatic mission must respond to this fundamental imperative; the diplomatic mission exercises all other functions in order to promote friendly relations and fruitful cooperation between the two states." (M. Anghel, G.Silași, A.D.Crăciunescu, 2015).

The function of protecting the interests of the acceding state and its citizens; the exercise of consular functions; diplomatic protection

The function of protecting the interests of the acceding state and of its citizens - individuals and legal entities, so the trusted person in the case of a resident abroad is the diplomatic agent. If the rights are violated to the resident, the informal and informal request is first made informally, unless a formal protest can be resolved, and the latter is the invocation of international responsibility if it has not been obtained results of internal appeals.

The exercise of consular functions existed most of the times concurrently with diplomatic ones. In 1961, at the Vienna Conference, the diplomatic mission was engaged in the exercise of consular functions.

Specific rules on diplomatic protection are laid down in International Law, as follows:

"The act complained of by the injured citizen must be unlawful in relation to international law: violation of a treaty or rule of minimum standard; the condition of citizenship; the exhaustion of the internal appeal, the faculty of the protector state to act or to refrain from doing so" (M. Anghel, G.Silași, A.D.Crăciunescu, 2015).

Other functions of the diplomatic mission:

In addition to the above-mentioned functions, the diplomatic mission also has other functions that are of less significant importance, but which can make a difference for some countries. These functions are: "adherence to protests; to look after the interests of the national minorities and especially of the persons belonging to the ethnicity of the acceding state and, last but not least, the protection of the foreign interests." (M. Anghel, G.Silași, A.D.Crăciunescu, 2015).

4. In Conclusion

In the era of globalization, diplomatic issues are all the more in the forefront, as the world needs to adapt to economic, social changes, etc.

The work of the diplomatic mission, as well as the results depend on the human resource. Persons appointed to be part of a diplomatic mission have the duty to make

a contribution through both personal qualities and professional qualities. The diplomatic agent has obligations towards both his country and the head of state of the country in which he has received the accreditation. The obligations towards the country bear the name of a loyalty obligation, and to the state where he is accredited has the name of the obligation to loyalty. Successful completion of a diplomatic mission highlights the competence of mission members. The accredited state is the state that establishes the functions and activity of the diplomatic mission, based on the International Law, respectively the Diplomatic Law.

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TENSES SPECIFIC TO BUSINESS COMMUNICATION

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Abstract: *A question of simplicity versus correctness seems to emerge quite often when discussing proper use of tenses in business communication. Several commentators argue that Business English texts are by their intrinsic nature rather direct and focused on rendering clearly and straightforwardly specific information, tending to employ the simplest of ways when doing so. Nevertheless, researchers can find voices that advocate for accuracy with respect to grammar rules implying, among others, the use of tenses, as this grammaticalness is, after all, in itself a minimal sign of the professionalism so much valued in the business fields. If simple tenses, basic forms, are seen more often than perfective aspects, this obviously makes sense from the specificity of the text analysed, from meeting's minutes or financial reports to business plans or contracts, for instance. However, tense consistency and mixed tenses are not a debatable issue when they appear to be resorted to, as their usage is surely implied for comprehensibility reasons, i.e. to facilitate correct transmission of the meaning intended. This article assumes to put forward examples of authentic texts in English from various fields of Economics and Business, showing what verbal tenses are most often used in these texts, bringing the arguments of the specialists involved and presenting own views on the matters discussed. Expectedly, it shall be seen that simple present and simple past are the tenses with the highest circulation in the specific texts presented, but the occurrence of other tenses and aspects will be analysed and justified. Though the article is just a mere overview, showing only a few examples from the very vast panel of texts in Business communication that make use of the grammar aspect of tenses, the discussions brought about will not only be of use for teachers of English for Specific Purposes (ESP), in general, and of Business English Communication, in particular, but they can also prove of relevance for students in economics, for economists and others in the business fields.*

Keywords: *English for Specific Purposes; Business Communication; common tenses; grammar specifics.*

JEL Classification: Z13.

1. Preliminary Observations

Consideration of grammar is obviously less of a preoccupation with authentic texts in LSP (Languages for Specific Purposes), in discourses of a lucrative purpose, of specific data presentation or of a deal oriented character and others as such, than in an academic or literary one. That is obviously not from a lack of care for the language rules if not from the particular nature of the information that is rendered by texts of this type and the direct way of its exposition, which do not normally need complex grammar structures.

2. Language Features of Business Communication

2.1. Nature of Texts

There is of course much variation of the types of texts encountered in the fields of business and economics, each entailing specific particularities. We can consider here any text that implies use of Business English of a certain nature, from business contracts to the ancillary business documents, from texts bringing some breaking news to informative data or financial statistics, from the standard language of management, organization, presentations, meetings, negotiations to that of transportation, tourism, travel, shipment, from commerce and trade to marketing and promotion, from accounting to banking a.s.o.

2.2. Grammar Consideration

No doubt, it largely depends on the nature of the text and the degree of its complexity, but more often than not, the grammar structures in Business English discourses tend to be reduced to a intermediate, though, most certainly, a decent level, within the limits of and, more likely, rather focusing on the text's clarity and comprehension.

It is not very likely to find a complex grammar structure where a more straightforward expression would do and, much in the same way, it is rather rare that a future perfect or a past perfect continuous may pop up in a sentence from a business text. A propensity for certain temporal aspects comes natural taking into account the quite limited necessities of such texts with respect to the distinction of particular tenses.

3. Time Representation in Business English

3.1. Temporal Aspects on Text Categories

Researchers put forward various examples and bring their arguments with respect to the specificities of the texts they discuss.

For instance, Gaertner-Johnston (2007) considers that sometimes, i.e. in the case of the minutes of meetings, the use of tense rules for the indirect speech might be not so advisable, as it could take the readers somewhat out of the context. Instead, she claims, keeping the tenses of the direct speech will give them a real sense of participation in that particular meeting as if they were attendees.

Thus, for meeting notes and minutes, the author of this article prefers variants A of the following (Table 1), regardless of their inconsistency with the clear grammar rules of sequence of tenses. She nevertheless remarks that this holds true if the minute is written at the appropriate time, so that the use of future tense for instance would still be valid considering the actual temporal reference.

Business plans, on the other hand, are considered to be properly written in present or future (Proofreading Pal, 2015), with a focus on either its coming into being or its preparation, as shown in Table 2.

Adverbials of time will also be represented in such texts by a restricted panel, for the same reason of focusing on simplicity and generally on rendering a pragmatic presentation of facts, figures and outcomes.

Table 1. Tense in Meeting Minutes

A. John said the next meeting will be on October 1.
B. John said the next meeting would be on October 1.
A. Min reported that the new shipment arrived today and is ready for processing.
B. Min reported that the new shipment had arrived that day and was ready for processing.
A. Stella said we need to seek a legal opinion.
B. Stella said we needed to seek a legal opinion.

Source: own concept and design of table, based on text content in the reference (Gaertner-Johnston, 2007)

Table 2. Present or Future for Business Plans

Professors and potential investors have different views on what tense a business plan should be written in, but definitely you should be using either future or present tense. Some people argue that you should always write a business plan in future tense because you're talking about your future plans.

But there's another school of thought that recommends using present tense instead because this will allow your plan to stay current as you develop it and you develop your business. In other words, as you develop your business, you develop your plan, and it stays current with what you're doing.

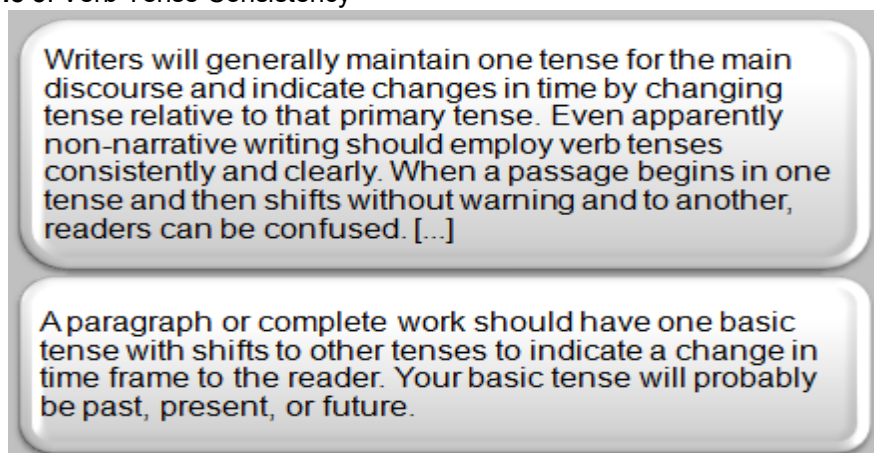
Source: own concept and design of table, based on text content in the reference (Proofreading Pal, 2015)

3.2. Basic Rules with Verbal Tenses in BE

Regardless of the category of the text or the field it belongs to, it is agreed that basic and consistent verb tenses should be used for the main line of the discourse and the changes in time frame are to be properly and clearly rendered by tense shifts (Newman, 2018), as explained in table 3.

It is a sign of seriousness, adequacy and care to use the tenses accurately and appropriately, especially as the business discourse itself generally requires mostly rather uncomplicated tenses, as remarked in Table 4. The advice given by this specialist (Marco, 2007) to those new in the field is to make no rebate from this one basic rules of convenience that may constitute a measure of the assessment and evaluation of their professionalism.

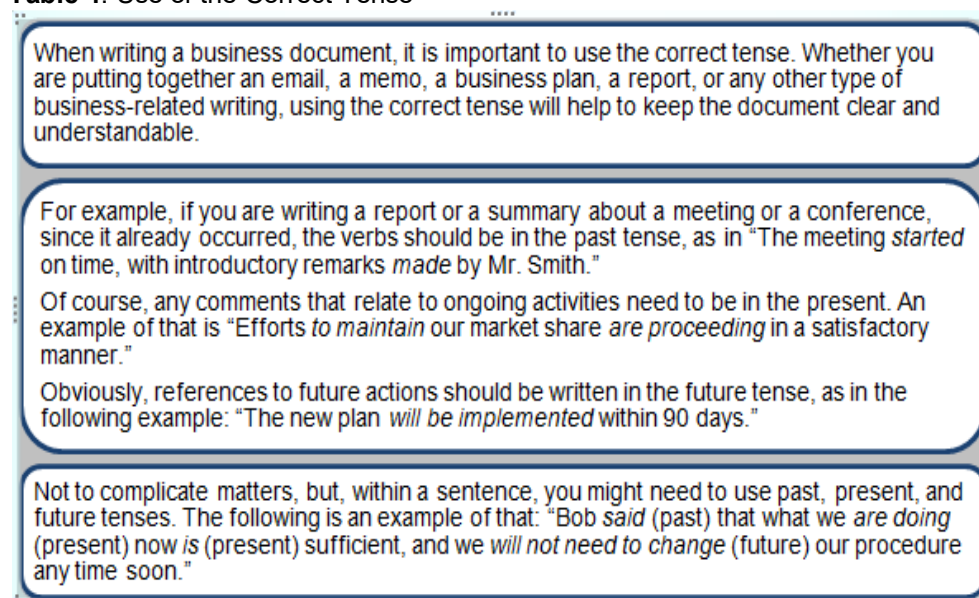
Table 3. Verb Tense Consistency



Writers will generally maintain one tense for the main discourse and indicate changes in time by changing tense relative to that primary tense. Even apparently non-narrative writing should employ verb tenses consistently and clearly. When a passage begins in one tense and then shifts without warning and to another, readers can be confused. [...]
A paragraph or complete work should have one basic tense with shifts to other tenses to indicate a change in time frame to the reader. Your basic tense will probably be past, present, or future.

Source of table: own design based on text content in the reference (Newman, 2018)

Table 4. Use of the Correct Tense



When writing a business document, it is important to use the correct tense. Whether you are putting together an email, a memo, a business plan, a report, or any other type of business-related writing, using the correct tense will help to keep the document clear and understandable.
For example, if you are writing a report or a summary about a meeting or a conference, since it already occurred, the verbs should be in the past tense, as in "The meeting <i>started</i> on time, with introductory remarks <i>made</i> by Mr. Smith." Of course, any comments that relate to ongoing activities need to be in the present. An example of that is "Efforts <i>to maintain</i> our market share <i>are proceeding</i> in a satisfactory manner." Obviously, references to future actions should be written in the future tense, as in the following example: "The new plan <i>will be implemented</i> within 90 days."
Not to complicate matters, but, within a sentence, you might need to use past, present, and future tenses. The following is an example of that: "Bob <i>said</i> (past) that what we <i>are doing</i> (present) now <i>is</i> (present) sufficient, and we <i>will not need to change</i> (future) our procedure any time soon."

Source of table: own design based on text content in the reference (Marco, 2007)

4. Authentic Examples

This study undertook to bring some examples of texts of an economic nature featuring tenses most commonly used in Business English, to analyse them, to discuss the findings and draw some conclusions relevant to learners, instructors, users and other stakeholders.

4.1. Use of Basic Tenses

4.1.1. Present and Past

Most commonly used tenses shall of course be the present simple and the past simple. For instance, in financial reports, when the actual movement of various economic indicators is presented, simple past is normally used, as seen in the following text: "Total operating expenses increased by 4% to \$4.4 billion. Compensation expense (i.e., salaries, wages and benefits), which represents approximately half of the University's total operating expense, increased 5% from \$2.1 billion in fiscal 2013 to \$2.2 billion in fiscal 2014. Salaries and wages increased by 6%, or \$87 million, to \$1.6 billion in fiscal 2014 due to the University's budgeted merit programs." ("Financial report", p.7)

However, explanations such as on what certain indicators mean or how they are calculated will generally be given in present simple, either passive or active constructions, such as in the example: "The expected return on pension plan assets is determined by utilizing hmc's capital markets model, which takes into account the expected real return, before inflation, for each of the pension portfolio's asset classes, as well as the correlation of any one asset class to every other asset class. This model calculates the real returns and correlations and derives an expected real return for the entire portfolio, given the percentage weighting allocated to each asset class. After calculating the expected real return, an assessment is made to accommodate the expected inflation rate for the forthcoming period. The final expected return on assets is the aggregate of the expected real return plus the expected inflation rate." ("Financial report", p.42)

This distinction is quite natural, as long as actual reporting obviously refers to a past fiscal year or other period of time clearly established, already finished and being right under analysis at the time of the report, while methods of calculation and work processes are of a permanent, repeatable, general nature.

Much in the same way, contracts and agreements will be based on the same aspect of simple present tense. For exemplification, we can consider the following fragments of a sales contract: "Seller agrees to transfer and deliver to Buyer, on or before [date], the below-described goods: [...]. Buyer agrees to accept the goods and pay for them according to the terms further set out below. [...] Buyer agrees to pay for the goods: In full upon receipt; In instalments, as billed by Seller, and subject to the separate instalment sale contract of [date] between Seller and Buyer; Half upon receipt, with the remainder due within 30 days of delivery. [...] Goods are deemed received by Buyer upon delivery to Buyer's address as set forth above. [...] Buyer has the right to examine the goods upon receipt and has [...] days in which to notify seller of any claim for damages based on the condition, grade, quality or quantity of the goods. Such notice must specify in detail the particulars of the claim. Failure to provide such notice within the requisite time period constitutes irrevocable acceptance of the goods. [...] Until received by Buyer, all risk of loss to the above-described goods is borne by Seller. [...] Seller warrants that the goods are free from any and all security interests." ("Sales contract")

4.1.2. A Touch of Future

Nevertheless, a future simple may come of use in some fragments of various sales contracts or lease agreements, as specifications regarding payment can be well put as future, as seen in the following fragments of an apartment lease agreement: "The

agreement will be for a term beginning on [...] and ending on [...]. The Tenant will pay Landlord a monthly rent of [...] for the term. Rent will be payable in advance and due on the [...] of each month [...] Rent will be paid to Landlord at Landlord's address [...] and will be payable in U.S. Dollars." ("Lease agreement")

4.1.3. Some Perfective Aspect

Findings of various departments of a business, into human resources, know-how, research and development, latest in technology, as well as various conclusions of the management division concerning the business strategy or direction, and others like such, are very probable to contain present perfect and simple present or future as they logically present a situation that has recently developed (along the time of the analysis) and may come up with solutions or plans of action. An example of the mixed use of present perfect tense and simple present tense can be seen as follows: "By now, most organizations have concluded that they face the threat of disruption. Some have even started to realize that because technological advantage degrades every year, standing still means falling behind. Hence the interest in innovation, complete with hip innovation labs complete with fancy coffee machines. But done right, innovation requires a rigorous process. It starts by generating ideas, but the hard work is in prioritizing, categorizing, gathering data, testing and refactoring." (Blank and Newell, 2017)

4.2. Mood of Addressing

It is evident that most business documents, being particularly of the form of some templates where only some customised data or figures have to be introduced and not requiring much syntax, will have the predicates - if any, for various explanations - in the simple present tense: "Gross profit is obtained by deducting the cost of goods sold from sales [...] Net earnings is the amount to be transferred to the retained earning section of the balance sheet" ("Bank Incomes Statement"), or, "The transportation of currency or monetary instruments, regardless of the amount, is legal." ("Customs declaration").

Most likely, documents such as profit and loss accounts, bank statements, waybills, customs declarations, balance sheets and others of the kind will only feature some instructions in the form of verbs in imperative mood or phrased by help of a modal verb such as 'should' or 'may': "Use this worksheet to prepare your income statement" ("Bank Incomes Statement"); "Any borrower who is a self-employed or an independent contractor should complete this form" ("Profit and Loss Statement"). If we consider business presentations, product launch, service introduction a.s.o., we again can note that these are based on addressing the audience and eliciting participation. They are focused on the participant and the discourse is thus built on imperative mood structures, aiming at keeping public's attention, gaining trust and raising interest. Even the verbs are such chosen so as to serve this purpose of having listeners involved and convinced: 'imagine, keep in mind, don't forget, let's consider, have a look at, think, compare, be honest' would probably be some of them and the mood is clearly that of 'buttonholing' the target spectators.

4.3. Use of Mixed Tenses and Registers

Though relating to business, if texts belong to the journalistic style for instance, the use of tenses differs much. Tenses will be used now to emphasize aspects, quotations are common and comments on them as well, so the temporal aspects will

have to follow these specificities.

We find future simple intermingling with present, past and present perfect, passive and active voice in a short BBC announcement of a business opening: " It has taken more than two years to build, but on Friday, Starbucks will open its first Italian outlet. The company's Milan "roastery" goes far beyond the usual latte production line. The marble-floored store will offer a "theatre of coffee roasting, brewing and mixology", as well as cocktails, pizza, bread and ice cream. Local businesses said they were "not afraid" of the competition, and emphasised that high-quality coffee was already widely available in the region." ("Starbucks")

A mix of direct and reported speech, of base tenses and modal verb constructions can be seen in the following note about an interview: " 'It looks like the thing that separates out the capable students from the really successful ones is not so much their knowledge...but their persistence at something,' Google chairman, Eric Schmidt said. For some people, college is just really easy. They can play 10 rounds of beer-pong until 4 a.m. and still ace an organic-chemistry exam the next day while their studious roommate is up to their eyeballs in color-coded flash cards and squeaks by with a B. A college degree can't tell Google whether an applicant is naturally smart or is a hard worker. Apparently, Google would rather mold someone with grit rather than someone who is a lazy high-achiever." (Ferenstein, 2014)

Breaking news or short reports, on 'selling' stories, though on a provocative tone so as to attract readers, do however tend to keep it simple, on a more informative than grammar pretentious note: " Hurricane Lane, which drenched Hawaii with four feet of rain, is a reminder of the devastation hurricane season can bring. Only one year ago Hurricane Harvey ravaged Houston, followed closely by Irma and Maria, which left a trail of destruction across Florida and Puerto Rico. Despite the private and government aid provided after these disasters, thousands continue to struggle even today. However, not everyone is struggling. In fact, some actually benefit economically from these extreme weather events." (Howell, 2018)

Continuous aspect, simple present, simple past, modal verb constructions, future simple, direct and indirect speech nicely blend in the following article on comparing employees: "When people are competing against each other, they often fail to work with each other. Because of this, innovation often halts or slows. 'The collaboration goes away, the teamwork drops, and everyone starts to try to score points all by themselves,' said Glassett. In this type of environment, productivity might increase in the beginning, he added. But after some time, the culture becomes toxic and unsustainable. Instead, employers and employees alike should celebrate strengths and pair up teammates who complement each other. 'This will create collaboration and a team dynamic instead of a bunch of mavericks running around trying to one-up each other,' said Glassett." (Caramela, 2018)

Quite rich in diverse tenses and styles is also the following text from an article on Twitter bias, containing as much as a future in the past and a past perfect, besides all the other tenses, voices and types of speech mentioned with the previous examples: "Broadcasting on Thursday through the Periscope account of @WarRoomShow — which is the name of an online video show hosted by an Infowars colleague — Mr. Jones said: 'They're scared of us. They're scared of the populist movement.' He added, 'They know their bans of not just me but millions of other people have angered folks, so they're moving aggressively.' Periscope is Twitter's live-streaming video app. While Twitter's permanent ban affects the Periscope accounts for Infowars and Mr. Jones, the company temporarily suspended

@WarRoomShow after Mr. Jones appeared on its broadcast. In a tweet, the company said it would take action "if other accounts are utilized in an attempt to circumvent" the ban of Mr. Jones and Infowars. A day earlier, Mr. Dorsey had testified before Congress about election interference and allegations of political bias on Twitter." (Coger and Nicas, 2018)

Still, as mentioned before, the vast majority of texts in the fields of Business and economics mostly confine to the use of basic tenses and temporal aspects, with a focus on the information.

5. Discussions and Conclusion

Professional language has after all to make good use of the specific terminology and render specialised meaning as clearly and straightforwardly as possible, rather than excel in peculiarities of philology, complex linguistics or sophisticated grammar structures. It only comes natural that Business English texts, by their specificity, shall use some of the verbal tenses more often than others.

We can however note that a constant in most business texts is, and should be, the focus on the information at stake, on the clarity, transmissibility and directness of the message, to ensure accurate perception and interpretation, rather than on a complicated syntax and a composite structure, just for the sake of strictly following all grammar rules, which, due to a complex linguistics, might even hinder attention and impede comprehension.

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INTERNAL DIRECTION VERSUS OUTER DIRECTION IN ROMANIAN AND GERMAN ADVERTISING / DIE KULTURELLE DIMENSION EINSTELLUNG ZUR UMWELT IN DER RUMÄNISCHEN UND IN DER DEUTSCHEN WERBUNG

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Abstract: People have different attitudes towards their environment. They try to control and dominate nature or are dominated by it. The way they deal with their environment is directly related to how they try to cope with their own lives. Personal, individual life is very important in cultures where self-control prevails. People are convinced that they can control nature by imposing their will. As a result, representatives of these cultures tend to actively take decisions. One's own destiny can be influenced by will, conviction, and inner attitude. In cultures characterized by outer control, the environment is considered much stronger than the individual. People see themselves as part of nature and want to live in harmony with nature. Its laws, powers and effects strongly influence human life. People believe that they cannot determine their own destiny, as it is largely influenced by external circumstances. Internal direction vs. Outer direction can also be recognized in the execution of advertisement, the interactions between the characters and the type of persons represented, as well as in the way the message is conveyed and how the target group is influenced and reached in the different cultures. / Menschen haben verschiedene Einstellungen gegenüber ihrer Umwelt. Sie versuchen die Natur zu kontrollieren und zu dominieren oder werden von ihr beherrscht. Die Art, wie sie mit der Umwelt umgehen, steht in einem direkten Zusammenhang, wie sie versuchen, das eigene Leben zu bewältigen. Das persönliche, individuelle Leben ist der Maßstab in Kulturen, in denen die Eigenkontrolle überwiegt. Die Menschen sind davon überzeugt, dass sie die Natur kontrollieren und beherrschen können, indem sie ihr ihren Willen aufzwingen. Demzufolge neigen Vertreter dieser Kulturen dazu, Entscheidungen aktiv herbeizuführen. Grundsätzlich kann das eigene Schicksal durch Wille, Überzeugung, innere Einstellung beeinflusst werden. In Kulturen, die sich durch Fremdkontrolle auszeichnen, wird die Umwelt viel stärker als das Individuum betrachtet. Die Menschen sehen sich als einen Teil der Natur und wollen im Einklang mit der Natur leben. Ihre Gesetze, Kräfte und Auswirkungen beeinflussen das menschliche Leben sehr stark. Die Menschen sind der Meinung, dass sie ihr Schicksal nicht selbst bestimmen können, da es überwiegend von äußeren Umständen beeinflusst wird. Die Einstellung zur Umwelt kann auch an der Ausführung der Werbung, der Interaktionen zwischen den Personen und der Art der dargestellten Personen erkannt werden, wie auch an der Art und Weise der Übermittlung der Botschaft und der Beeinflussung und Erreichung der Zielgruppe in den unterschiedlichen Kulturen.

Keywords: interculturality; intercultural perception; cultural dimensions; internal direction vs. outer direction; advertising. / **Schlüsselwörter:** Interkulturalität; interkulturelle Wahrnehmung; kulturelle Dimensionen; Einstellung zur Umwelt; Werbung.

JEL Classification: Z13.

1. Einleitung

Moderne, wie auch eher traditionelle Gesellschaften, setzen sich mit den gleichen Grundproblemen auseinander. Sie unterscheiden sich aber in den Antworten und Reaktionen auf diese Herausforderungen und wie sie diese Probleme lösen. Diese Auffassung war vor allem in der Sozialanthropologie der ersten Hälfte des 20. Jahrhunderts verbreitet (von Ruth Benedict, Margaret Mead). Um diese Unterschiede zwischen den Kulturen zu erklären, entwickelten Ethnologen wie Edward T. Hall und Sozialwissenschaftler wie Geert Hofstede und Fons Trompenaars sogenannte Kulturdimensionen.

Mit Hilfe dieser Kulturdimensionen lassen sich kulturelle Denk-, Handlungs- und Wahrnehmungsmuster charakterisieren, schematisieren und abgrenzen. Sie widerspiegeln Grundbereiche möglicher kultureller Unterschiede. Eine Dimension stellt aber immer nur einen Aspekt einer Kultur dar. Sie sind Durchschnittswerte und treffen nie auf alle Mitglieder einer Kultur zu. Auch innerhalb nationaler Kulturen sind unterschiedliche Orientierungen zu finden (z.B. Belgien, die Schweiz, Kanada).

Fons Trompenaars ist ein niederländischer Wissenschaftler im Bereich der interkulturellen Kommunikation. Er veröffentlichte mehrere Bücher zum Thema interkulturelles Management und entwickelte aufgrund der Werke von Geert Hofstede und Edward T. Hall eine Theorie zur Analyse kultureller Unterschiede, die in seinem Buch *Riding the Waves of Culture* in Form von sieben Dimensionen kultureller Unterschiede beschrieben sind.

Im Gegensatz zur Studie von Hofstede stammen die von Trompenaars Befragten nicht aus einem einzigen Unternehmen, sondern aus vielen verschiedenen Unternehmen. Zahlreiche Personen wurden dabei im Rahmen interkultureller Trainingsprogrammen befragt, weitere Personen wurden aus internationalen Unternehmen in 50 verschiedenen Ländern berücksichtigt. Dabei wurden den Befragten zwei oder mehrere Aussagen vorgelegt, bei denen sie die aus ihrer Sicht jeweils zutreffende Aussage auswählen konnten (Schugk, 2004, S. 151). Seine Erkenntnisse und Theorien veröffentlichte er zusammen mit Charles Hampden-Turner im Jahre 1997 in seinem Hauptwerk *Riding the Waves of Culture: Understanding Cultural Diversity in Business* (1996). Im Rahmen ihrer Untersuchungen identifizierten sie insgesamt sieben grundlegende Kulturdimensionen, die sich wiederum in drei Kategorien menschlicher Probleme zuordnen lassen: Universalismus versus Partikularismus, Individualismus versus Kollektivismus, Neutralität versus Emotionalität, Spezifität versus Diffusität, Leistung versus Status, Einstellung zur Zeit, Einstellung zur Umwelt.

Die ersten fünf Kulturdimensionen charakterisieren die Kategorie zwischenmenschlicher Beziehungen zwischen den Kulturmitgliedern. Die beiden letzten Dimensionen, die die Art des Umgangs mit der Zeit bzw. mit der Umwelt beschreiben, bilden dagegen jede eine Kategorie für sich.

2. Die Merkmale der Kulturdimension Einstellung zur Umwelt

Menschen haben verschiedene Einstellungen gegenüber ihrer Umwelt. Sie versuchen die Natur zu kontrollieren und zu dominieren oder werden von ihr

beherrscht. Die Art, wie sie mit der Umwelt umgehen, steht in einem direkten Zusammenhang, wie sie versuchen, das eigene Leben zu meistern.

Das persönliche, individuelle Leben ist der Maßstab in Kulturen, in denen die Eigenkontrolle überwiegt. Die Menschen sind davon überzeugt, dass sie die Natur kontrollieren und beherrschen können, indem sie ihr ihren Willen aufzwingen. Dies ist z.B. in angelsächsischen Ländern und Nordeuropa, allerdings weniger in deutschsprachigen Ländern der Fall. Sie glauben daran, dass sie ihr eigenes Schicksal durch entsprechendes Handeln beeinflussen können. Demzufolge neigen Vertreter dieser Kulturen dazu, Entscheidungen aktiv herbeizuführen. Grundsätzlich kann das eigene Schicksal durch Wille, Überzeugung, innere Einstellung beeinflusst werden (Innenorientierung), das im Zusammenhang mit der Kontrolle über die Natur steht.

In Kulturen, die sich durch Fremdkontrolle auszeichnen, wird die Umwelt viel stärker als das Individuum betrachtet. Die Menschen sehen sich als einen Teil der Natur und wollen im Einklang mit der Natur leben. Ihre Gesetze, Kräfte und Auswirkungen beeinflussen das menschliche Leben sehr stark. Menschen mit dieser Einstellung glauben an das Schicksal und sehen weniger in sich selber, als vor allem in den äußeren Umständen die Gründe für Erfolge und Misserfolge (Treichel, Mayer, 2011, S. 255). Dies trifft z.B. auf afrikanische und arabische Länder zu. Sie sind der Meinung, dass sie ihr Schicksal nicht selbst bestimmen können, da es überwiegend von äußeren Umständen beeinflusst wird (Außenorientierung).

Die Dimension der Umwelt bleibt auf Verhalten und Produkte in Kulturen nicht ohne Auswirkungen. Ein Beweis der Innenorientierung der USA sind die von Frank Sinatra gesungenen Lieder. So bringt das Lied „My way“ eine Unabhängigkeit von der Umwelt zum Ausdruck. Auch im Lied „New York, New York“ weist der Künstler mit „If I can make it there, I'll make it anywhere“ auf das hohe Durchsetzungsvermögen der Amerikaner hin. Auch die zahlreichen Super-Helden in den amerikanischen Comics sind Ausdruck einer Innenorientierung.

Eine Außenorientierung hingegen bezieht sich auf das von außen Vorgegebene. Diese Außenorientierung widerspiegelt sich in asiatischen Kampfsportarten wie Judo, Jiu-Jitsu oder Aikido (Treichel, Mayer, 2011, S. 255). So wird beim Judo die Bewegung des Gegners aufgegriffen, so dass der Kämpfer die gleiche Bewegungsrichtung nachvollzieht, um den Gegner anzuspüren.

Aber auch in dem Umgang mit der äußeren Umwelt kommt diese Dimension zum Ausdruck. Dies kann am Beispiel des Walkman aufgezeigt werden. Die ursprüngliche Idee, die hinter dieser japanischen Erfindung steht, ist, Musik zu hören, ohne andere Menschen zu stören. Diese typisch japanische Einstellung steht im Gegensatz zur westlichen Sichtweise des Walkmans, gemäß der ein Walkman als Möglichkeit gesehen wird, Musik zu hören ohne von anderen Menschen gestört zu werden.

Die Frage, wie verschiedene Kulturen ihre jeweiligen Chancen einschätzen, selbst das eigene Schicksal bestimmen zu können bzw. wie sehr sie sich der Umgebung und Natur ausgeliefert sehen, wird sehr unterschiedlich beantwortet. Eine Frage zur Ermittlung des Einflusses der Umwelt bezieht sich auf den Stellenwert des Glücks von außen (Trompenaars, Hampden-Turner, 2012, S. 174). Eine andere Frage von Trompenaars diesbezüglich bezieht sich auf die Einstellung „Des eigenen Glückes Schmied“ (Trompenaars, Hampden-Turner, 2012, S. 174).

Während das Bewusstsein, die Natur menschlichen Bedürfnissen unterwerfen zu müssen, in Ländern wie Brasilien, Nigeria und China besonders ausgeprägt ist,

vertreten die Kulturen Japans, Ägyptens, Österreichs, Schwedens und der Schweiz eine entgegengesetzte, auf den Respekt der Umwelt ausgerichtete Werteorientierung.

Zusammenfassend kann die Einstellung zur Umwelt folgendermaßen dargestellt werden: Kulturen der Innenorientierung sind oft dominierend, manchmal aggressiv gegenüber der Umwelt, Konflikt und Widerstand gelten als Zeichen von Überzeugung und es herrscht ein Unbehagen hervor, wenn Umwelt außer Kontrolle erscheint. Kulturen der Außenorientierung sind oft flexibel, kompromissbereit, auf Friedlichkeit ausgerichtet, Harmonie und Einfühlungsvermögen sind sehr wichtig und sie können mit Zyklen oder Veränderungen der Natur gut umgehen.

3. Die Einstellung zur Umwelt in der deutschen bzw. in der rumänischen Gesellschaft

Pessimismus und Fatalismus beschreibt das innere Weltbild der Rumänen und prägt ihre Einstellung zum aktiven Handeln. Aus dieser Perspektive wird das Leben durch schicksalhafte Vorherbestimmtheit geprägt. Die Neigung zur Passivität äußert sich darin, dass die eigenen Entscheidungen eher beschränkt sind, persönliche Initiative kaum gezeigt wird und Verantwortung für sich selbst oft auf andere übertragen wird. Man hofft auf Besseres, ist sich jedoch bewusst, dass es langfristig nicht geschehen wird. Deshalb setzt man ausschließlich auf kurz- und mittelfristige Pläne und Geschäfte. Langfristigen Geschäften gegenüber, die auf einen optimistischen Erfolg in der Zukunft gerichtet sind, sind Rumänen eher abgeneigt.

Deutsche identifizieren sich stark mit der eigenen beruflichen Tätigkeit. Sie nehmen ihre Arbeit, ihre Rolle, ihre Aufgabe und ihre damit verbundene Verantwortlichkeit sehr ernst. Sie möchten das, was sie machen, gut machen und sind sehr darauf konzentriert. Wenn sich jemand an die Regeln hält, dann gilt er als zuverlässig, korrekt und gewissenhaft. Weil hier Strukturen, Normen, Regeln internalisiert werden, besteht auch die deutsche Zuverlässigkeit gegenüber der Sache. So haben deutsche Produkte im Ausland meistens einen guten Ruf und sind oft mit hoher Qualität verbunden.

4. Die Einstellung zur Umwelt in der rumänischen und in der deutschen Werbung

Die rumänische Kultur neigt zur Außenorientierung, wenn man die Einstellung zur Umwelt in Betracht zieht. Die Menschen wollen in Einklang mit der Natur leben und sie so wenig wie möglich verändern. Das wird auch in den zahlreichen rumänischen Werbeanzeigen für Mineralwasser (*Bilbor, Dorna*) oder Bier (*Ciucaș, Ciuc, Gösser*) dargestellt, in denen das Produkt in der Natur und in Einklang mit der Natur präsentiert wird (Abb.1).

Auch in den Schlagzeilen und Slogans der Werbeanzeigen kommen die Begriffe *Natur* und *Natürlichkeit* oft vor (*Dorna*: „Natur trifft auf die Stadt“; *Ciucaș*: „Das Lieblingsbier der Natur“ oder „Bier aus dem Gebirge“; *Gösser*: „Von einer vollkommenen Natürlichkeit“). Die Blickfänger der Anzeigen präsentieren außer dem Produkt meistens Gebirgslandschaften und Wasserquellen, sei es einen Wasserfall oder einen Gebirgsfluss oder einen See, um die Natürlichkeit und Reinheit der Getränke zu betonen.

Auch in dem Werbefilm für die Biermarke *Ciucas* wird das Produkt im Rahmen einer idyllischen Gebirgslandschaft dargestellt (Abb. 2). Eine wunderschöne Naturlandschaft wird gezeigt, in der auch das Symbol der Biermarke, der Hirsch, erhaben neben dem Menschen besteht. Den Einklang mit der Natur wiedergibt die paradiesische Berglandschaft mit dicht bewälderten Berghängen und einem Bergfluss mit Wasserfall. Zur Natur gehört natürlich auch die Tierwelt, so wie der Hirsch, das Abzeichen der Biermarke *Ciucas*. Am Fluss angelangt können Mensch und Hirsch die drei elfenartigen Frauen bewundern, die den aromahaltigen Hopfen und das reife Malz in das Wasser werfen und so das Brauverfahren des „Lieblingsbieres der Natur“ nachahmen. Es ist eine paradiesische Landschaft in der Mensch, Tier und Natur im Einklang zusammenleben und die Möglichkeit des Genusses, der Ruhe aber auch der Reinheit anbieten. So kann ein Bier aus der Natur und in der Natur allein aber vor allem mit seinen Freunden genossen werden.



Abb. 1. Rumänische Werbeanzeigen, welche die Außenorientierung der rumänischen Kultur hervorheben



Abb. 2. Werbefilm für die Biermarke *Ciucaș* – *Das Lieblingsbier der Natur* (2013) auf <http://www.iqads.ro/creatie/30442/ciucas-berea-favorita-a-naturii>

Die Bank *Garanti* wirbt in rumänischen Werbefilmen sogar mit sprechenden Tieren für die Rettung des Waldes Șinca, z.B. mit dem Wolf Mișu, dem Bären Marinică oder dem Luchs, die im Wald leben und die in Gefahr sind, ihr natürliches Lebensumfeld zu verlieren (Abb. 3).



Abb. 3. Werbefilm für die Bank *Garanti* – auf <http://www.iqads.ro/creatie/30446>

Zahlreiche rumänische Anzeigen machen auch auf die Gefahren der Umweltverschmutzung, der extremen Abholzung der Wälder mit zum Teil brutalen, schockierenden Bildern aufmerksam, um auf die extreme Abholzungen der Wälder

hinzuweisen. Der Botanische Garten aus Bukarest wirbt mit Werbeanzeigen und dem Slogan: „Wir lernen seit 150 Jahren von der Natur“ gegen die Umweltvergiftung und die Naturzerstörung. Die Natur wird als bedeutende Ressource angesehen, in der der Mensch ausgeglichen und sorgenlos leben soll (Abb. 4).



Abb. 4. Rumänische Werbeanzeigen, die auf die Umweltverschmutzung und -zerstörung hinweisen

In dem rumänischen Werbefilm *Let's do it Romania* sitzt eine Familie beim Picknick am Fluss (Abb. 5). Als sie anfangen zu essen, merkt der Vater, dass die Senfflasche leer ist. Daraufhin wirft er unbeschwert die leere Senfflasche einfach in den Fluss, neben vielen anderen Flaschen und Abfällen, die sich neben einem Baum im Fluss gesammelt haben. Infolgedessen bittet der Vater ein Paar auf der anderen Flussseite, ihm ihre Senfflasche zu leihen und hinüberzuwerfen. Als dieser ihm die Flasche zuwirft, fällt sie aber in den Fluss neben die anderen leeren Flaschen und Müllabfällen. Der Vater versucht nun, die geliehene Flasche ausfindig zu machen und glaubt sie auch gefunden zu haben. Doch als er den Senf aus der Flasche in den Teller drückt, fließt daraus nur schmutziges und verseuchtes Wasser über sein gegrilltes Fleisch. Wütend wirft er die falsche Flasche einfach weg auf einen anderen Müllhaufen, der sich diesmal unweit von ihm anhäuft.



Abb. 5. Werbefilm für *Let's do it Romania – Der Senf* (2010) auf <http://www.iqads.ro/creatie/5597/let-s-do-it-romania-mustarul>

Auch der Aberglaube und der Glaube an das Schicksal sind Merkmale der Außenorientierung. So kommen oft in rumänischen Werbeanzeigen und -filmen Wahrsager, Horoskope, Glücksbringer vor, wie zum Beispiel ein Horoskop um den richtigen Beruf auszuwählen oder die Glücksbringer wie ein Schornsteinfeger, ein Kleeblatt oder ein Hufeisen. Allerdings wird immer darauf hingewiesen, dass man sich nicht nur auf diese Glücksbringer verlassen muss, wenn man einen gebrauchten Wagen kauft oder sich einer Karriere zuwendet (Abb. 6).

Die deutsche Werbung für *Caritas - Armut* zeigt die Innenorientierung der Deutschen durch die Bezwingung der Krankheiten (Abb. 7). Die Menschheit hat die Pest besiegt, die Pocken überwunden, sie hat Medikamente gegen Tuberkulose und gegen Typhus entwickelt. Nur gegen den größten Krankheitserreger kommt die Medizin allein nicht an: gegen die Armut.



Abb. 6. Rumänische Werbeanzeigen, die auf den Aberglauben und die Außenorientierung hinweisen



Abb. 7. Deutscher Werbefilm für Caritas – *Die Armut* (2012) auf <http://www.youtube.com/watch?v=MxEWm7MI4Fk>

Im Werbefilm *Mercedes - Die G-Klasse* widersetzen sich die Menschen den Kräften der Natur und bezwingen so die Natur (Abb. 8). Drei Bergwanderer klettern durch hohen Schnee im verschneiten Gebirge. Plötzlich fällt einer von ihnen in eine tiefen Schlucht. Nur an einem Seil abgesichert, hängt der Bergwanderer in der gefährlichen Schlucht. Seine Freunde schaffen es, ihn im letzten Augenblick zu retten, doch nun kommt ein Sturm auf. Die drei Wanderer kämpfen sich immer weiter durch die Schneelandschaft in Richtung des Gipfels, als sie plötzlich eine Person neben ihnen gehen sehen, die leicht bekleidet, ohne Gebirgsausrüstung und ohne den von ihnen erlebten Strapazen den Gipfel erreicht. Diese ist mit einem *Mercedes* den Weg durch das Gebirge bis zum Gipfel gefahren. Mit einem *Mercedes* „kommt man weiter als man denkt“. Mitglieder von innenorientierten Kulturen widersetzen sich der Natur und versuchen sie zu bezwingen.



Abb. 8. Werbefilm für Mercedes – Die G-Klasse (2006) auf <http://www.werbefilmchen.de/videos/a-z/?abc=M>

5. Zusammenfassung

Die zentrale Frage ist, inwiefern sich Werbung als eine besondere Form der Kommunikation vor dem Hintergrund kultureller Dimensionen betrachten lässt. Dabei sind vor allem die mangelhafte Abstimmung der Werbegestaltung auf die Länderbedingungen bzw. kulturelle Prägungen der Konsumenten in Betracht zu ziehen. Damit sind insbesondere kulturelle Ausprägungen wie Werte, Normen, Verhaltensweisen und Rituale gemeint. Somit können Verletzungen von kulturellen Konventionen und Tabus nicht nur zum Misserfolg des Werbezieles, sondern sogar zu einem Verlust des Ansehens des Unternehmens im Ausland führen. Erweitert man nun die Betrachtung auf eine internationale bzw. interkulturelle Ebene, so wird deutlich wie schwierig es ist, Konsumenten mit unterschiedlichem kulturellen Hintergrund wirksam zu erreichen. Die Kultur ist also ein entscheidender Erfolgsfaktor für die Werbung und deshalb bei der Gestaltung der Werbebotschaft unbedingt zu berücksichtigen, um die gesetzten Ziele erreichen zu können.

Zusammenfassend kann man sagen, dass keine allgemein gültigen Regeln für die Konzipierung einer Werbung existieren. Vielmehr müssten eine Vielzahl an Faktoren berücksichtigt werden, um ein bestimmtes Produkt erfolgreich zu bewerben. Neben kulturellen Eigenheiten sind produktspezifische Faktoren sowie länderübergreifende Zielgruppen zu berücksichtigen. Folglich kann die Einstellung zur Umwelt auch an der Ausführung der Werbung, der Interaktionen zwischen den Personen und der Art der dargestellten Personen erkannt werden, wie auch an der Art und Weise der Übermittlung der Botschaft und der Beeinflussung und Erreichung der Zielgruppe in den unterschiedlichen Kulturen.

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THE SOCIAL ECONOMY AND THE LEGISLATIVE ENVIRONMENT. CASE STUDY: ROMANIA

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Abstract: Europe's social system has undergone profound changes in the last decade, changes that will cause global challenges and opportunities. An important challenge for the social economy is the transformation of the urban environment into an inclusive one, corresponding to a heterogeneous population that has to cope with an intense pace of change in the economy. Society faces new social problems and states do not have the capacity to adapt to the new challenges. It is therefore necessary to develop new social protection policies that would make a major contribution to reducing inequalities. A solution to citizens' expectations of economic and social issues can only emerge from a joint effort of all EU Member States and the decisions adopted to be implemented in a timely manner. Europe is the most eloquent example of the social problems encountered in all corners of the world, from the equal pay for women and men (stipulated in the Treaty of Rome -1957) to receive treatment in another Member State and the preservation of rights to retire from a job in another country. We can say that we are foreseeing a new world of labor given by technical progress and the growth of the service sector, which means changes in the field of professional training to meet the evolution of the needs of consumers. This may mean some new opportunities and for others an uncertain future.

Keywords: social economy; legislative environment; legislative measures; Romania.

JEL Classification: A13; L38; M31.

1. Introduction.

Integrated social assistance measures are measures to prevent and combat poverty and the risk of social exclusion that integrate into social inclusion process actions that provide the necessary resources for the participation of vulnerable people in the economic, social and cultural life of society.

Social services of general interest are governed by EU directives to Member States, with an increased importance of contracting social services, public procurement and state aid rules. In order to apply these directives, each member country takes into account its own social protection system and specific tradition. Some countries rely

on the private system for the provision of social services and others on the public sector, but predominantly the public-private partnership that also operates in Romania. Through the measures it assumes, social assistance aims at developing individual, collective and group capacities in order to ensure social needs, increase the quality of life and promote the principles of cohesion and social inclusion.

2. Legislative Measures Aimed at the Social Economy in Romania

Given the proven importance of the social economy over the last few years, both in Europe and especially in Romania, it has encouraged the development of fiscal and public policy measures to legislate social enterprises and, more recently, that of insertion.

The Ministry of Labor, Family and Social Protection is the central public authority that develops social assistance policy and promotes the rights of the family, the child, the elderly and the disabled and any persons in need. The main source of financing for social economy forms is the European Social Fund through the Human Capital Operational Program managed by the Ministry of European Funds. The ministries responsible for achieving the Europe 2020 objectives also provide advice to the social partners and civil society through the social dialogue committees.

In Romania, this area has gained momentum and therefore it has been necessary to develop specific legislation. Thus, the Social Economy Law no 219/2015, with its subsequent amendments and completions, which aims to regulate the social economy domain and to establish measures to promote and support it.

The methodological norms for the application of the provisions of Law no. 219/2015 on the social economy, approved by the Government Decision no. 585/2016, provide for the drafting of the county socioprofessional employment plan by the employment agencies for a period of 3 years and contains the following elements:

- a) the objectives established at the level of the county, respectively of Bucharest Municipality, resulting from the consultation and which are in accordance with the following: The National Strategy on Social Inclusion and Poverty Reduction for the Period 2015-2020, approved by the Government Decision no 383/2015, with their action plans, as well as other strategic documents of economic and social development at local, county and Bucharest level;
- b) the measures and actions necessary to achieve the proposed objectives, the deadlines for implementation and the responsible institutions;
- c) sources of financing for the implementation of the county socio-professional insertion plan.

In the following table I will present the incident legislation that regulates all sectors of social economy in Romania, as well as its specific forms, legislation that was developed after the 1990s.

Table 1. The incident of the legal environment of social economy in Romania, 1990-2017.

No.	Name of the normative act	Regulations	Observations
1	Law no 292/2011, as amended and supplemented	Social Assistance Law	In force since December 23, 2011

No.	Name of the normative act	Regulations	Observations
2	Law no 219/2015	Social Economy Law	In force since August 27, 2015
3	Decision no 585/2016	Approves the Methodological Norms for the application of the provisions of Law 219/2015 on social economy	In force since August 29, 2016
4	Law no 196/2016	Law on Minimum Inclusion Income	Minimum Inclusion Income is the state's financial support to ensure a minimum living standard and refers to vulnerable groups
5	Ordinance no. 26/2000	Associations and foundations	In force since April 30, 2000
6	Law no 34/1998, with subsequent amendments	Granting subsidies to Romanian associations and foundations with legal personality, which establishes and manages social assistance units	In force since January 27, 1998
7	Ordinance no 1986/2016	Approves the specific social identity element of the social enterprise	Includes Visual identity manual for the social entity's specific corporate identity element of 04.10.2016
8	Law no 248/2015	Law on Stimulating the Participation in Preschool Education of Children from Disadvantaged Families	In force since January 31, 2016. It establishes the educational incentive in the form of social vouchers.
9	Law no 346/2004, with subsequent amendments	Regulatory measures on the establishment and development of small and medium-sized enterprises	In force since August 01, 2004. The provisions of this law are applicable to associations and foundations, agricultural cooperatives and agricultural companies engaged in economic activities
10	Ordinance no 393/2017	Approves Collaborative Protocol for the Implementation of Integrated Community Services, Needs to Prevent Social Exclusion and Combat Poverty	In force since July 06, 2017. The protocol is made between: the Ministry of Labor and Social Justice, the Ministry of Health and the Ministry of National Education
11	Decision no 383/2015	Approves the National Strategy on Social Inclusion and Poverty	In force since June 26, 2015.

No.	Name of the normative act	Regulations	Observations
		Reduction for the period 2015-2020 and the Strategic Action Plan for the period 2015-2020	It includes strategic action at national level to reduce poverty and promote social inclusion
12	Ordinance no 1240/2017	It regulates the specific criteria for prioritizing investments under priority axis 8 "Development of health and social infrastructure", investment priority 8.1 - Investing in health and social infrastructure contributing at national, regional and local level, reducing inequalities in health status and promoting social inclusion by improving access to social, cultural and recreational services, as well as switching from institutional services to community-based services...	In force since October 30, 2017.
13	Guide from 23.09.2014	Applicant's Guide - Specific Requirements for Call for Proposals no. 173 "Development of the social economy", financed by the Sectoral Operational Program "Human Resources Development" 2007-2013, major field of intervention 6.1 "Development of the social economy", dated 23.09.2014	Issued by the Ministry of European Funds

Source: Author's own research results

3. Conclusions

In recent years a relatively new form of social economy has emerged, namely that of composers, which in most European countries are called "commons". This form appeared in Romania with the return of forests and pastures to the former owners, with different names according to each area of the country.

What has not yet been achieved in Romania is the Social Entrepreneurship Law, which at the time of this article is in the project phase, although at European level was developed *"Regulation (EU) no. 346/2013 of the European Parliament and of the Council of 17 April 2013 on European Social Entrepreneurship Funds, which aims to "build an ecosystem to promote social enterprises in the economy and social innovation"*. This Regulation is necessary in the context of uniform application of social entrepreneurship funds by imposing common obligations in all Member States and reducing the complexity of legislation.

Also, the lack of information on the areas covered by the Europe 2020 objectives is a real challenge for stakeholders in Romania. Difficult access to information affects the social partners from a financial point of view. Policy makers should identify the

financial needs of social economy and the appropriate model for providing financial support.

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THE INFLUENCE OF CORPORATE GOVERNANCE ON ATTRACTING FOREIGN DIRECT INVESTMENTS (FDI) – IN ROMANIA

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Abstract: *Within an economic entity, regardless of its organizational form, public or private, different interests are manifested between managers and other stakeholders. Corporate governance deals with the way in which these interests can be harmonized to make work more efficient by using equitable distribution of rights and responsibilities between all stakeholders. All corporate governance requires trust-based relationships between all structures and various stakeholders. In the context of globalization and internationalization of economies, in order to effectively attract the financial and intellectual capital needed for the sustainability of a business, corporate governance mechanisms must be based on gaining the trust of all stakeholders. A healthy business environment focuses on providing information in a transparent and faithful way, and in the business environment the existence of good corporate governance is significant as importance in improving the capacity of an organization to create value. These goals require a climate based on accountability, fairness, transparency and efficiency, where ethical principles should govern behaviours spread throughout the entity. Starting from these goals, the empirical research aims to identify the effects generated by corporate governance in terms of the evolution of foreign direct investments in Romania. These goals requires the existence of entities in which management and control processes are adequate, giving them a high level of transparency and credibility in dealing with capital owners, investors and other stakeholders. The research has reconfirmed that the proper governance of an entity can only be achieved by knowing and applying corporate governance principles, rules and practices with responsibility. According to corporate governance theories, if they are well-known, understood and applied, they can increase the credibility of entities, better and faster access to capital markets, capital costs reduction, efficient use of resources, sustainable business development, and, also, a healthy economic environment. In order to achieve the public interest, new challenges and trends, it is important for management and control systems to reconfigure the objectives in which the achievement of global performance has implications for social responsibility and environmental protection.*

Keywords: corporate governance; financial performance; foreign direct investments; Romania; globalization; Bucharest Stock Exchange.

JEL Classification: G30; L25.

1. Introduction

Corporate governance, as a component part of modern management, has become a key tool in achieving performance goals and reducing company risks. In the current era of knowledge, the economic environment is constantly changing, and the information is moving at an amazing speed.

Addressing the concept of performance is an important concern in the company's management. In order to adapt to the new conditions, management decisions are taken in a short time, based on accounting information.

The financial dimension of the entity is a major coordinate of the entity. We cannot talk about efficient governance without considering the contribution of accountancy. Based on certain principles and regulations, accountancy processes and transmits financial information, representing today a formalized communication language in the business environment. The accuracy and relevance of financial-accounting information used in decision making has a decisive influence on the future of the company.

The quality of decision-making process is an essential parameter in a globalized market where competition is strong and changes occur rapidly, generating a large amount of unstructured information. The basis for decision-making process is the information provided by the financial-accounting system, and their increasing complexity makes it difficult to process and disseminate knowledge.

The big financial scandals were generated to a great extent by the deformation of the economic reality, fact that has increased the requirements for the quality of the reported financial-accounting information. At the same time, compliance with accounting regulations and corporate governance practices has been enforced. The external financial reporting should present a complete picture of the entity's performance and financial position, and provide predictions about the company's future development. Modern techniques of processing the accounting information and the implementation of accounting standards make possible getting information on past performance, its current position and the future evolution of the firm.

In Romania, the introduction of corporate governance principles in order to increase the economic and financial performance of companies is absolutely new. Moreover, in parallel with the delayed regulation and implementation of the core elements of the corporate governance code, the Romanian economy has gone through several difficult steps in the political, economic, legal and social reforms. The effects of these delays were found in the decision-making processes of capital investment or disinvestment, these non-conformities and partial reflections of the economic reality represented have direct or indirect effects on all sectors of the economy with serious and multiple implications.

In the given context, in the light of the benefits to investors, there is a growing need to extend the principles of corporate governance and the level of medium- or small-sized economic entities, given their level even if they are not quoted on a capital market. However, at present, due to more or less objective factors, such extrapolation is not possible and, in some cases, unnecessary, if we refer to economic and financial considerations.

The objective of the research is to investigate, based on statistical data, the link between the level of foreign investments and corporate governance in Romania. From the methodological point of view, the research is mixed, theoretically-applicative, the theme being approached from an ethical and positivist perspective. The study includes both a qualitative and a quantitative approach. The qualitative approach made creates a complex image of the corporate governance phenomenon and shows how the foreign direct investments affects the performance. The quantitative analysis was used to complete and substantiate the qualitative approach and based on data officially published by the Bucharest Stock Exchange, the

2. Conceptual Delimitation of Corporate Governance in the Context of Foreign Direct Investment

Corporate governance defines a set of principles, rules and control mechanisms applied to protect and harmonize the interests of all categories of players in the economic plan. We remember that the interests that develop within corporations are often contradictory.

In a particular approach, corporations are very complex social organization systems, with the status of legal persons, having the legal authority to issue or transfer shares and bonds. According to the Oxford Dictionary, a corporation is a company or group of companies authorized to work together as one entity (Oxford Dictionaries, 2014). The way a corporation is run to increase its value and to constantly adapt to the requirements of modern economics is closely linked to corporate governance. This concept refers to a whole system through which entities are driven to achieve objectives, involving many stakeholders such as transnational processes, technologies, procedures and codes of good practice.

The level of investment in general and the level of foreign direct investment (FDI) are particularly important elements of good corporate governance. FDI is considered to be the primary economic development, with most countries trying to attract investment from multinational companies (Talamo, 2011). They can promote economic growth for both industrialized countries and developing countries, and corporate governance is one of the key elements for their level. It is a driver of growth, by providing new capital, technology transfer and managerial know-how, increasing marketing skills, organizational efficiency, and focusing on profitability (Hardi & Buti, 2012).

An important tool for the FDI level is the real estate of the company. An inefficient management of this may lead to massive losses in the number of shares held by investors. Foreign investors need to know how the company's fixed assets are used to improve productivity and consolidate the entity's financial base (Oladokun & Aluko, 2012).

Amongst the problems faced by companies when operating abroad are:

- High agency costs;
- Political risks;
- Cultural and linguistic differences;
- Unknown market;
- Foreign exchange risk.

In recent decades, globalization has led to major changes in all areas, with most developing countries trying to attract investment from multinational companies. The world economic system has been restructured due to the increase in international capital flows, i.e. foreign investment and loans. So, direct exports have been replaced by foreign affiliate sales to host countries, which has led to the replacement of international trade with foreign investment, in particular FDI, the amount of international capital flows growing considerably over the last three decades (Gurbuz & Aybars, 2010). Currently, the rapid expansion of FDI is positively influencing the performance of firms that have internal resources and strong capital returns (Chang & Rhee, 2011). They can enter many markets, gaining new experiences and

becoming more competitive. Countries less open to foreign investment are characterized by property restrictions and weak corporate governance mechanisms (Talamo, 2011). Open markets and investment regimes are two powerful instruments to attract investment, in general, and foreign direct investment, in particular.

Consequences of foreign direct investment:

- Use local labour force;
- Introducing new know-how;
- Forcing local firms to improve their management systems;
- Promote technological and industrial development;
- Domestic firms may be bankrupt by foreign firms;
- The cost of production factors may increase as a result of foreign direct investment.

Developments in developing countries are associated with a more liberal economy and more merited FDI. They are a growth engine by providing new capital, transferring technology and managerial knowledge, marketing skills, organizational efficiency, and focus on profit. There are two ways companies can accumulate Foreign Direct Investments, merging and acquisition, both having their own advantages and disadvantages (Burker et al., 2011). Their wealth represents important financial sources for developing countries. However, investment in developing countries has more impact on performance than investment in developed countries (Yang et al., 2013). Internationally, FDI has received much attention from economists because they involve high-profile investments that characterize multinational firms (Chang & Rhee, 2011). Following an investment process, foreign firms acquire an important advantage over entities that have been purchased (Petkova, 2009).

The main objective for attracting foreign investment is to improve the efficiency of production by differentiating and geographically separating the production stages or conducting individual business activities benefiting from competitive advantage over local economies. A large number of companies from different countries can take part in the internationalization of businesses, which can thus come into possession of new technologies and knowledge (Derado, 2013). At the same time, the emergence of FDI requires monitoring of operations by global corporations (Lian & Ma, 2010). Firms that have always been privately owned work better than state-owned firms (Schweiger & Friebe, 2013) and are more likely to attract FDI. Foreign investment management can affect the value of the firm, and firms with less stable incomes are more valued than stable income firms (Al-Khouri et al., 2004). Another role in the FDI dimension is played by the convergence of National Standards with International Standards Financial Reporting (IFRS). They increase the value of the firm and promote FDI, as they reduce the cost of processing information for foreign investors. The positive effect of reduced information costs is felt strongly in partner countries whose accounting systems have greater differences as they enhance the beneficial role of convergence (Ding et al., 2011).

Since the value of the firm depends on the quality of decisions made by the management committee, foreign investment can improve the decision-making process. When investments are made by entities with internal resources and higher skills, they can improve performance and increase the value of the firm. At the same time, in the case of expanding companies, managers should consider market uncertainty and the competitive pressures they offer (Chang & Rhee, 2011).

3. Empirical Presentation of the Evolution of Foreign Direct Investment in Romania

For Romania, the number of corporations with foreign involvement in 2017 was 5.837 according to the National Office of the Romanian Trade Register (see figure no.1). Among the reasons for the profound changes in the capital structure of Romanian entities are: access to resources, new outlets and lower transaction costs (Mihai, 2012).

According to the National Bank of Romania (BNR) report, the net foreign investment flow in 2017 was 4.794 million Euros.

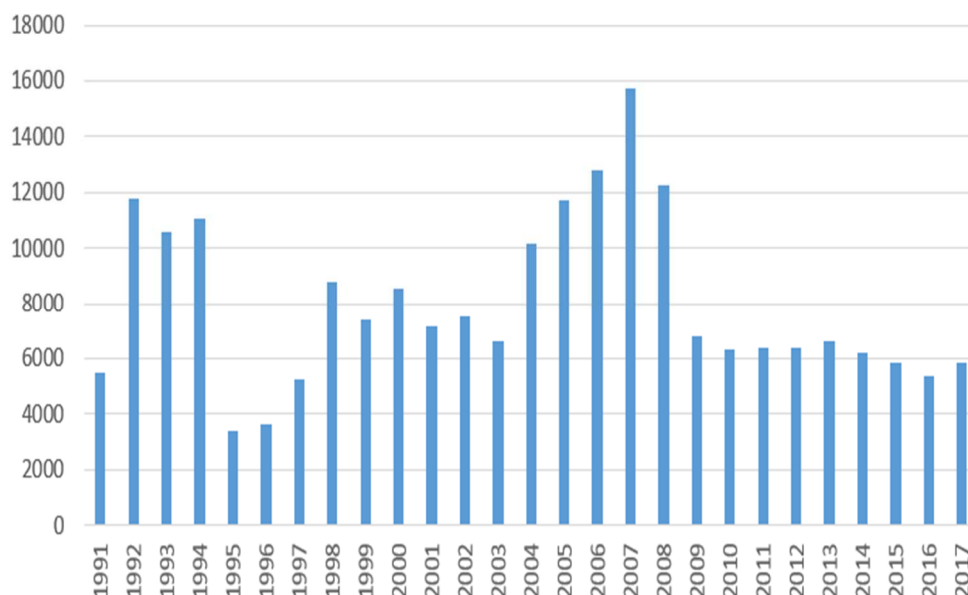


Figure 1: Number of companies with foreign participation in capital between 1991 - 2017 in Romania

Source: National Trade Register Office, available at:

<http://www.onrc.ro/index.php/en/statistici?id=254> accessed on 01.03.2019

The total FDI in 2017 was 75,851 million Euros. The top five countries ranked according to the share held in the FDI balance in Romania (see figure 2) at 31 December 2017 are:

- The Netherlands (25.90 percent);
- Germany (12.80 percent);
- Austria (12.60 percent);
- Italy (6.20 percent);
- France (6.20 percent);

As regards to the order of the first five countries of direct investment, for the first five countries the hierarchy has remained unchanged since 2009, and Italy surpassed France and Cyprus, ranked fourth.

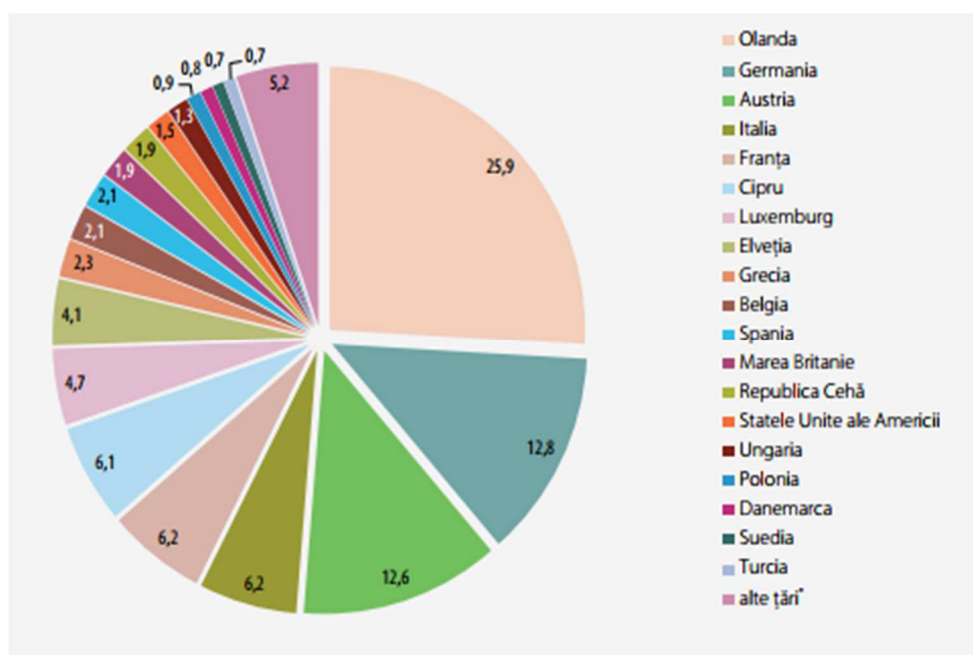


Figure 2: The share held by the countries of origin of the main foreign investors in Romania in 2017

Source: National Bank of Romania, available at: www.bnr.ro accessed on 01.03.2019

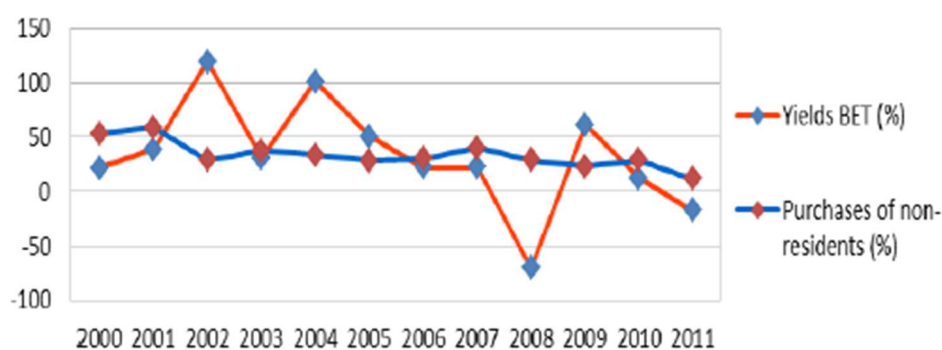


Figure 3: Comparison between BET gains and foreign investor acquisitions between years 2000 - 2011

Source: Bucharest Stock Exchange, available at: www.bvb.ro accessed on 01.10.2016

Until 2012, the Bucharest Stock Exchange (BVB) reported the share of non-resident investors for total purchases and sales. Figure no. 3 shows the correlation between the evolution of shares and transactions of foreign investors. Under these circumstances, we have built the BET monthly earnings data series (as a measure

of the performance of the listed shares) and the monthly acquisitions of shares, the total purchases by non-resident investors, taking into account the period from 2000 to 2011.

According to the BSE, the BET index "Bucharest Exchange Trading", launched in 1997, the prices of the first ten shares that are traded on the stock exchange are moving, having their liquidity as the main criterion for their classification.

We found an interesting fact, more precisely, the connections between BET earnings and non-residents are not significant because non-resident investors take into account not only the tendencies of the shares but also the financial performance, tangible and intangible strong resources of the entity, brand, financial deficit and business environment competition.

4. Conclusions

Effective corporate governance is a holistic system that incorporates elements both inside and outside the company. An entity's management is based on certain legal concepts and regulations, including ethical, sociological and behavioural aspects, human resource management, country specificity, and various strategic elements. It involves effective control systems, accounting practices and strict monitoring mechanisms, resulting in lessening conflicts of interest between shareholders and managers, the cost of these conflicts, improving performance, and efficient use of all entity resources.

The internationalization of capital markets has led to important changes in all areas of activity. Developing countries are trying to attract foreign direct investment, the internationalization of the company being considered a strategy of economic growth and risk mitigation. Key determinants of good corporate governance, FDI and international trade can drive improvements in business performance, with the consequence of developing the business environment in general.

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**SECTION: *MANAGEMENT, MARKETING,
ECONOMIC INFORMATICS AND CYBERNETICS***

FINANCIAL DEVELOPMENT AND INCLUSIVE RURAL FINANCIAL SYSTEM IN NIGERIA

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Abstract: *Currently, as a result of increase in population which has put high demand on rural financial institutions for credit and savings accessibility, the market for rural finance is facing a challenge of inadequate flow of funds. The large resources required to meet this demand call for the establishment of new rural financial institutions while the existing institutions require more funds to scale-up the activities and outreach. The enormous potentials of the rural sector make sound financial development to be of priority. The priority for sound financial development hinges on effective inclusive rural financial system because it is evident that large majority of the people live in rural areas in Nigeria and more so, do not have access to financial services. This informed the need to examine the relationship between financial development and inclusive rural financial system in Nigeria. The data collected from Central Bank of Nigeria and World Bank data base from 1981 to 2017 were subjected to Vector Error Correction Model (VECM), Johansen co-integration and impulse response function methods of analysis. The results of the Johansen co-integration test show three co-integration equations which indicate evidence of long run among the variables of the study. Also, the result of the VEC indicates that FID, RLDR and RUTP equations constitute the true cointegrating equations while the others are statistically flawed. In addition, post-estimation diagnostic test shows that there is no presence of first order serial autocorrelation in the model, absence of heteroscedasticity, and the model is not normally distributed. The study concluded that access to financial markets is still limited in the rural areas as a result of lack of inclusive rural financial system in Nigeria. Therefore, the study recommended among others that it is necessary to increase the efficiency of rural financial institutions which may promote inclusive rural financial system for effective financial development.*

Keywords: *Efficiency; Financial development; Financial services; Financial stability; Financial institutions; Inclusive rural financial system.*

JEL Classification: G19; G21; R5.

1. Introduction

Basically, population density is considered to be more important for financial development and inclusive rural financial system in developing countries. Ironically, it is also evident that large percentage of the people in developing countries lives in rural areas without access to financial services. Among other things, lack of finance is one of the fundamental problems hampering production, productivity and income of rural farm households. This necessitates many rural households and farm

enterprises in developing countries to obtain informal credit while the few that obtained credit and insurance from a wide array of rural financial intermediaries were actively monitored. The aim is to keep agents focused on their efforts to improve the chances that their financed projects do not fail and/or to reduce the possibility that project cash flows may be diverted to other purposes rather than meeting promised repayments.

Monitoring is used both as a substitute for, and in addition to, collateral guarantees and legal enforcement strategies. Hence, the nature of informal financial market, which is predominantly in rural areas and in most cases, outside the formal banking sector, with their activities not being captured in the financial aggregates, is posing concerns and challenges for the development of financial stability.

In Nigeria, before the introduction of rural banking, several farmers relied exclusively on informal financial market for their savings and credits activities. Even with the emergence of rural banking, it is still utilized by around 5 per cent of the rural population. Though, the precise size of informal financial market relative to the formal financial system is unknown, the informal financial market is still crucial given that it is principally the major source of financing for the poor and low income rural populace (Oloyede, 2008).

Given the nature of informal financial markets in Nigeria that is characteristic by small, unit-size, unconventional practices, lack of transparency of operations, a low capital base and limited services, their terms of engagement are often more stringent than those of formal institutions. They are however, widely patronized because of nearness and availability, promptness of service delivery and the existence of social ties between practitioners and their clients. Therefore, as part of the efforts to promote financial development, the Central Bank of Nigeria (CBN) has over the years, encouraged their integration with the formal financial system through awareness creation, appropriate policies, capacity building and training. The CBN is also enhancing their integration into the formal financial sector through the creation of appropriate linkages, for instance, the self-help linkages groups for agricultural financing.

Another strategy of integrating the informal financial market in Nigeria is the design and implementation of the financial inclusion strategy by the CBN which was launched in October 2012 with the aim of increasing the number of Nigerians to be included in the formal sector from 30.0 per cent as at 2010 to 70.0 per cent by the year 2020. Generally the accessibility of a good financial service is considered as one of the engines of economic development. But the major problem in Nigeria still remains lack of adequate access to financial services in the rural areas.

In the light of above the main aim of this paper is to identify the problems deterring the effectiveness of the rural financial market in Nigeria and proffer policy implication that will promote its inclusiveness. In this fast growing field of empirical and theoretical research evidence has shown that majority of the studies examined the nexus between financial development and economic growth or rural finance while none linked the relationship with inclusive rural financial system so, there is need to carry out this study.

The remaining part of this paper contains section two which is literature review, section three is methodology, section four presents' findings and section five is conclusion and recommendation.

2. Literature Review

2.1. Theoretical Review

Theoretically, financial development is centered on financial structuralist view presented by Gurley and Shaw (1955), Goldsmith (1969), and Hicks (1969) which argues that development of a financial system is crucially important in stimulating economic growth especially in the rural areas because under-developed financial systems retard economic growth. More so, financial institutions and intermediation matter in the endogenous growth models developed by Arrow (1962). Thus, policies to foster financial development should be aimed at promoting the inclusive rural financial systems by creating more financial institutions and promoting greater variety of financial products and services to generate a positive effect on the saving–investment process. Although, Modigliani and Miller (1958) observed that with perfect markets, informational symmetry, and no transaction costs, real economic decisions are independent of the financial structure. However, rural financial markets are characterized by asymmetric information; agricultural financial markets in particular are subject to (local) monopoly, have high transaction (screening and monitoring) costs and, therefore, the neoclassical models do not reflect the realities in these markets. The problems in the rural markets are aggravated due to the special environment which deters inclusive rural financial system to thrive. Rural financial system environment are affected by specific conditions of rural areas, such as lower population density; lower number of rural bank branches, low level of savings, seasonality and lumpiness of agricultural cash flows and larger loan defaults among others. As a result, Hoff and Stiglitz (1996) propose three competing theories of the rural credit markets in developing countries. Hypothetically, the first theory postulates that in the informal market the village moneylenders are monopolists because they charge higher rate of interest rate to maximize profits. This market is highly complicated because there are often saturated with high transaction costs of switching lenders. The second theory assumption is that the rural credit market can only be perfectly competitive with market clearing equilibrium, where high interest rates indicate high risk of borrowers. Also, there is credit rationing in the rural market because some of the loan applicants may receive a loan and others do not even though they paid a higher interest rate (Stiglitz and Weiss, 1981). The third theory is a typical reflection of rural market because the assumption is that the informal credit market is characterized by uncertainty, high transaction costs, and information asymmetry, which typically leads to moral hazard and adverse selection. In this market the lenders use indirect (passive) or direct (active) screening mechanisms to reveal the quality (risk level) of borrowers in order to overcome informational asymmetry. Indirect screening, therefore, often leads to credit rationing a combination of price and quantity of credit that is below the market clearing level. The mechanisms for direct screening include geography, kinship, and inter-linkages with other markets to solve the problems of information, incentives and enforcement. So, the market will be monopolistically competitive. For rural financial system to be inclusive there is need for deeper financial markets with greater breadth and efficiency of intermediation for the expansion of financial transactions through markets at a pace that exceeds the growth of non-financial activities.

2.2. Conceptual Review

One of the greatest challenges confronting financial authorities in developing countries is ability to devise appropriate financial development strategies that will capture the financial services requirements of farmers and small and medium entrepreneurs who constitute about 70 percent of the population. The absence of efficiently operating rural financial markets in Nigeria has become a serious constraint on sustainable rural development. Financial development is a multidimensional concept and constitutes a potentially important mechanism for long run financial growth of rural areas.

Fundamentally, for sustainable growth and development the financial empowerment of the rural areas is vital, being the repository of the predominantly poor in society. So, inclusive financial system is one that serves all clients not just the relatively well-off. This means reaching out to poor and low-income clients and providing them with affordable financial services tailored to their needs in rural areas (Helms 2006; United Nations 2006; Chen and Jiao 2009).

Inclusive rural financial system aim is to either eliminate structural or functional imbalances in the rural financial system (Hayek 1945, 1948; Shaw 1973; Li et al 2008). Therefore, it must be conducive to overcoming information symmetry; reduce the financing plight of farm households and SMEs due to lack of collateral, increase accessibility to financial resources for farm households; and able to improve financial efficiency by way of market-oriented models.

Financial services in the rural economy must be delivered on a sustainable basis to ensure that services are available in the long term. However, financial services frequently need to be accompanied by non-financial services such as financial education, business development and agricultural extension services, or linkages to local health organizations to empower rural areas to benefit from access to finance. If not empowered, access to finance can put vulnerable populations at even higher risk and lead to over-indebtedness.

Although informal financing has a certain advantage in the acquisition of information, this advantage is limited to a relatively fixed number of customers within a small area, and the requirements for geography, popularity and kinship-based relationships are comparatively harsh (Feng, He and Du, 2006). With more diversified transactions, this advantage would be lost.

For low- and middle-income groups in rural areas to have access to financial services and to increase the supply of rural finance, it is essential to build an inclusive financial system and to foster a competitive rural financial market (Helms 2006; United Nations 2006; Li et al. 2008; Wang 2009).

Based on the identified gaps in rural finance, the ILO suggests focusing on supporting knowledge creation and innovation in rural financial service delivery, increasing the managerial and technical capacity of financial service providers to serve rural and remote areas, and providing an enabling environment, in order to unlock the considerable economic potential of rural areas and benefit rural populations. The choice of policy options should be guided by the vision of a competitive financial market with a multitude of players that provide appropriate and demand-driven products and services.

2.3. Empirical Studies

Empirical studies on financial development and inclusive rural financial system dynamics are not only scanty in number but restricted in scope in terms of the measure of financial development. Majority of the studies on financial development were linked with financial inclusion. Han (2008) found that the efficiency representing the level of financial development had very important influence on economic growth by establishing the optimization model. Nie (2009) used multiple linear regression analysis to find the relationship between rural financial development and economic growth in Heilongjiang province. Yu (2011) used 1978–2010 annual data to investigate the relationship between rural financial development and rural economic growth using vector autoregressive (VAR) model. Ding Zhiguo (2012) analyzed the mutual influence between rural finance and rural economic development and observed the Chinese rural credit structure imbalance. Huang (2013) pointed out that the innovation of rural finance helped to improve rural financial services, but the rural financial reform still lagged behind the economic development of agriculture and rural areas. Allen, et al. (2013) examined financial development and financial inclusion gaps and found that population density is considerably more important for financial development and inclusion in Africa than elsewhere. Due to limited number of studies between financial development and inclusive rural financial system in Nigeria, it becomes imperative to carry out the study of this nature.

3. Methodology

The data collected from Central Bank of Nigeria and World Bank data base between 1981 and 2017 were analyzed by Vector Error Correction Model (VECM), co-integration and impulse response function methods. The variables of the study are financial development (FID), which is proxy by % of commercial banks private credit to GDP (CBPC_GDP), while the efficiency of inclusive rural financial system is measured by number of rural bank branches to total banks (NRBB), rural bank loans to deposit ratio (RBLDR), ratio of agricultural loan to total loan (AGRICL_TL) and ratio of rural population to total population (RUTP).

3.1 Model Specification

In line theoretical framework in this study, we follow the endogenous growth model which emphasized the relevance of financial intermediation and its important role in improving efficiency of rural financial markets. So, this informed the financial development as dependent variable to be incorporated into the model (Greenwood and Jovanovic, 1990; King and Levine, 1993; Pagano, 1993). Arrow's (1962) endogenous growth model in a simplified form can be written as

$$Y_i = A(K) F(K_i, L_i) \quad (1)$$

Where Y_i denotes output of firm i , K_i donates its stock of capital, L_i denotes its stock of labour, K without a subscript denotes the aggregated stock of capital and A is the technology factor.

For the purpose of this study the adopted and modified endogenous growth model can be rewritten and specified as follows:

$$FID_i = f(NRBB, RBLDR, AGRIC_TL, RUTP) \quad (2)$$

The functional relationship between financial development and inclusive rural financial system for estimation purpose is based on the modified model of Allen, et al. (2013) and specified as follows:

$$FID_t = a_0 + b_1NRBB_t + b_2RBLDR_t + b_3AGRICL_TL_t + b_4RUTP_t + e_4t + f_5t + \varepsilon_t \quad (3)$$

3.2. Estimation Technique

The estimation technique used in this study is Vector error correction (VEC) model of a VAR model containing co-integration relationship for non-stationary time series data. It is stated as follow:

$$\Delta y_t = aecm_{t-1} + \sum_{i=1}^{p-1} \Gamma_i \Delta y_{t-i} + \varepsilon_t, \quad t = 1, 2, \dots, T \quad (4)$$

A VAR model with a mechanism of error correction model (ECM) is formulated as:

$$\Delta FID_t = \psi + \sum_{i=1}^m h_i \Delta FID_{t-i} + \sum_{j=1}^m \lambda_j \Delta NRBB_{t-j} + \sum_{p=1}^m \phi_p \Delta RBLDR_{t-p} + \sum_{q=1}^m \varphi_q \Delta AGRICL_TL_{t-q} + \sum_{z=1}^m \delta_z \Delta RUTP_{t-z} + aecm_{t-1} + \varepsilon_t \quad (5)$$

where,

$aecm_{t-1} = \beta'y_{t-1}$ is the error correction term, reflecting the long-term equilibrium relationship between variables directly. a reflects the adjustment speed back to the equilibrium when the variable coefficient vector is deviating from the long-term equilibrium state.

The VECM model is specified as

$$\Delta \ln FID_t = \alpha_0 + \sum_{i=1}^n \beta_{1i} \Delta h(FID)_{t-i} + \sum_{i=1}^n \beta_{2i} h(NRBB)_{t-i} + \sum_{i=1}^n \beta_{3i} h(RBLD)_{t-i} + \sum_{i=1}^n \beta_{4i} h(AGRICL_TL)_{t-i} + \sum_{i=1}^n \beta_{5i} h(RUTP)_{t-i} + \lambda e_{t-i} + e \quad (6)$$

The model helps to avoid short run loss of information. Error correction term helps to correct the proportion of disequilibrium in the next period and is represented by coefficient of λ if the variables are co integrated.

4. Analysis of the Results

4.1. Unit Root Test

The unit root test results in table 1 below show that the Augmented Dickey Fuller (ADF) statistical values are greater than the critical values at 5% level of significant and all of the variables are stationary at first difference. Therefore, the hypothesis of non-stationary was therefore rejected.

Table1: Unit Root Test

Variables	ADF Test statistics	5% critical level	Order of integration
FID	-5.347650	-4.243644	I(1)
NRBB	-6.669293	-4.243644	I(1)
RBLD	-5.513779	-4.284580	I(1)
AGRICL_TL	-6.573952	-4.252879	I(1)
RUTP	-6.804931	-4.243644	I(1)

Source: Author's Computation, 2018

4.2. Lag Order Selection

In the table 2 below in order to determine the optimal lag length the study used Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC), Hannan-Quinn Information Criterion (HQ) and the Final Prediction Error (FPE) to test for the lag order. It was noted that, of all these criteria, Akaike Information Criterion (AIC) indicated optimal lag length of one.

Table 2: Results of Vag Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-583.6358	NA	7.51e+08	34.62564	34.85010	34.70219
1	-441.5999	233.9415*	782661.9*	27.74117*	29.08796*	28.20047*
2	-416.6867	33.70617	871034.6	27.74628	30.21539	28.58831
3	-395.5112	22.42104	1445894.	27.97125	31.56269	29.19603

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level); FPE: Final prediction error; AIC: Akaike information criterion ; SC: Schwarz information criterion ;

HQ: Hannan-Quinn information criterion

Source: Author's Computation, 2018

4.3. Johansen Cointegration Test

Since the results of the Johansen co-integration test shown in table 3 indicate three co-integration equations only for trace statistic, therefore, there is a long run relationship among the variables. In addition, normalized co-integrating test was carried out to determine the long relationship.

Table3: Johansen Cointegration Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.521294	75.76145	69.81889	0.0155
At most 1 *	0.43111	49.97802	47.85613	0.0312
At most 2 *	0.347257	30.23544	29.79707	0.0445

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values

Source: Author's Compilation, 2018

4.4. Normalized Cointegration Test

The results in table 4 show that number of rural bank branches (NRBB) exhibits a negative relationship with the financial development (FID). This is an indication that an increase in the number of rural bank branches retards financial development in Nigeria. The insignificant of this variable limits the effects of Central Bank of Nigeria rural banking policy in Nigeria. Also, there is an inverse relationship between rural loan deposit ratio (RLDR) and financial development (FID), which shows that an increase in RLDR decreases FID in Nigeria and it is insignificant. It implies that increase in RLDR may not promote FID and limit the effectiveness of CBN credit policy, especially agricultural credit in Nigeria. In addition, agricultural loan to total loan (AGRIC_TL) has an inverse relationship with FID but has significant effect on FID. This shows that AGRIC_TL is very important in the growth of financial development. More so, the results show that increase in rural population (RUTP)

leads to increase in financial development (FID). Although, it is insignificant but it's indicate the need for the expansion of rural banking system that will promote effective inclusive rural financial system. In conclusion, since the banking credit to the private sector is less than 70 percent of GDP then the country has a relatively low developed financial system.

Table 4: Normalized Cointegration Test

Variables	Coefficient	Standard Error	T value
NRBB	-0.375901	0.251603	-1.494025
RLDR	-0.031133	0.017490	-1.780055
AGRIC_TL	-0.582304	0.266784	-2.182682*
RUTP	0.472543	0.301124	1.569261
C	1.110129	14.82519	0.074881

Source: Author's Compilation, 2018

4.5. Vector Error Correction Estimates (VEC) Results

The true cointegrating equations indicated are shown in the result of the Vector Error Correction (VEC) in table 5 below. The result of the VEC indicates that FID, RLDR and RUTP equations constitute the true cointegrating equations. The others are statistically flawed.

Table 5: Vector Error Correction Estimates Standard errors in () & t-statistics in []

Cointegrating Eq:	CointEq1				
FD(-1)	1.000000				
AGRIC_TL(-1)	0.236406 (0.29316) [0.80640]				
NRBB(-1)	0.196070 (0.25879) [0.75764]				
RLDR(-1)	0.125914 (0.02556) [4.92660]				
RUTP(-1)	0.451391 (0.32162) [1.40349]				
C	-59.80939				
Error Correction:	D(FID)	D(AGRIC_TL)	D(NRBB)	D(RLDR)	D(RUTP)
CointEq1	-0.606432 (0.26190) [-2.31547]	0.234373 (0.11122) [2.10734]	0.138791 (0.12791) [1.08508]	-7.138270 (2.75608) [-2.59001]	-0.001593 (0.01449) [-0.10994]

Source: Author' Computation, 2018

4.6. VEC Model and Granger Causality

The short run causality among the variables using Granger causality/Block Exogeneity Wald tests based on VEC model was performed. The test results in table 6 show that there is existence of a unidirectional causal relationship between NRBB and RUTP in the short-run. This shows that increase in the number of rural bank branches encourages rural people to patronize banks which may lead to the acceleration of financial development.

Table 6: VEC Granger Causality/Block Exogeneity Wald Tests

Dependent variable: D(NRBB)			
Excluded	Chi-sq	df	Prob.
D(FD)	2.493664	2	0.2874
D(AGRIC_TL)	3.471248	2	0.1763
D(RLDR)	0.801862	2	0.6697
D(RUTP)	27.97535*	2	0.0000
All	36.54885	8	0.0000

* significant at 1% level, ** significant at 5% level, *** significant at 10% level

Source: Author's Computation, 2018

4.7. Post-estimation Diagnostic Test

The results in table 7 and figure 1 below show how the model was examined for normality, serial correlation, heteroskedasticity and stability tests. The VAR Residual Serial Correlation LM Tests was employed in this study to check for the presence or otherwise of first order serial autocorrelation in the model using 1 period lag. Since the probability value of 0.5600 is greater than 5%, hence, we accept the null hypothesis (Ho), therefore, we conclude that there is no presence of first order serial autocorrelation in the model or the residuals are not serially-correlated. Also, since the probabilities of chi. square statistics of 0.3808 is higher than 0.05, this indicates the absence of heteroscedasticity, therefore, the errors are homoscedastic. In addition, since the Jargue-Bera probability statistics is below 5% level of significance, then the model is not normally distributed. More so, the Inverse Roots of AR Characteristic Polynomial of figure 1 reveals the stability condition of the model or the series considered. It could be observed from the graph that none of the roots lies outside the unit circle, thus this means that VAR satisfies the stability condition.

Table 7: Normality, Serial correlation, Heteroskedasticity and Stability Tests

Serial Correlation LM Tests: 23.30041(0.5600); Heteroskedasticity Tests: 306.8146(0.3808); Normality Tests (Jarque-Bera): 605.8516(0.0000)
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Source: Author's Computation, 2018

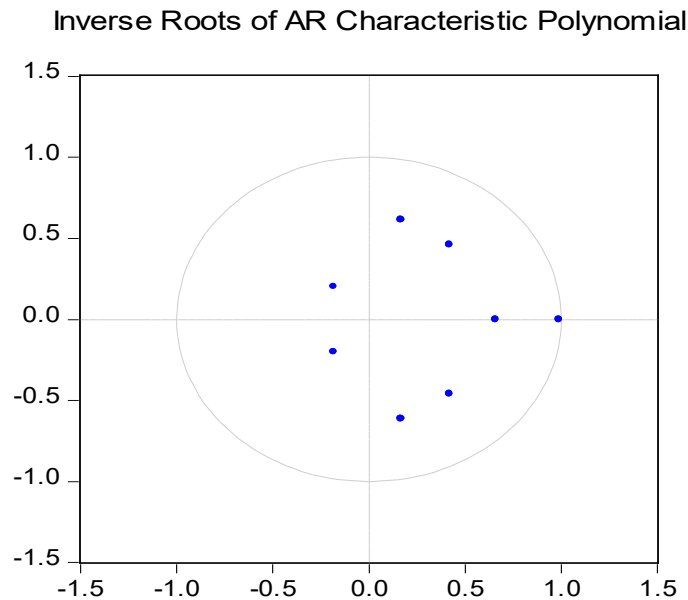


Figure 1: Inverse Roots of AR Characteristic Polynomial

Source: Author's Computation, 2018

4.8. Forecast error variance decompositions (FEVD)

The results presented in tables 8a to e are based on the VAR system ordered as Chelosky ordering of FID, AGRIC_TL, NRBB, RLDR and RUTP.

4.8.1. Variance Decomposition of FID

The results in table 8(a) show how much of financial development (FID) own shock is explained by movements in its own variance and the other variables. In the first year, FID own shock is explained by 100 percent but reduced to 75.79 percent in the tenth period horizon. In explaining the shocks in FID, AGRIC_TL is more important than NRBB, RLDR and RUTP both in the short-run and long-run because as FID decreases towards the last horizon AGRIC_TL increases.

Table 8a: Results of Variance Decomposition of FID

Period RUTP	S.E.	FID	AGRIC_TL	NRBB	RLDR
1	4.712598	100.0000	0.000000	0.000000	0.000000
2	5.932744	93.39888	2.512079	3.015713	0.734896
3	6.232420	86.29787	8.664228	3.683416	0.321104
4	6.534427	80.73587	14.67614	3.350833	0.292124
5	6.819988	77.61041	18.07172	3.146632	0.282259
6	6.933041	76.48655	19.19593	3.044866	0.372656
7	6.959076	76.07831	19.53335	3.047299	0.447420
8	6.966748	75.91089	19.66894	3.059651	0.462382
9	6.972411	75.79259	19.78429	3.058855	0.461903
10	6.977571	75.68052	19.89957	3.055601	0.461276

Source: Author's Compilation, 2018

4.8.2. Variance Decomposition of AGRIC_TL

The results in table 8(b) show that in the first year, AGRIC_TL own shock is explained by 99.8 percent but reduced to 85.07 percent in the last horizon which is the tenth year. NRBB is more important in explaining the shocks of AGRIC_TL but both continue decreasing towards the last period horizon.

Table 8b: Variance Decomposition of AGRIC_TL:

Period RUTP	S.E.	FID	AGRIC_TL	NRBB	RLDR
1	2.507712	0.101783	99.89822	0.000000	0.000000
2	3.126490	0.892519	86.44040	8.947258	0.860914
3	3.479718	0.736884	83.54654	9.462932	3.057652
4	3.707152	1.584263	84.19584	8.498254	2.771223
5	3.901932	2.381886	84.74399	7.671654	2.530751
6	4.019248	2.871736	84.88464	7.261145	2.385219
7	4.088183	3.068357	84.89506	7.064521	2.363082
8	4.130070	3.150422	84.92842	6.940238	2.378738
9	4.160036	3.171828	85.00375	6.841859	2.408668
10	4.182903	3.178353	85.07266	6.767358	2.431890

Source: Author's Compilation, 2018

4.8.3. Variance Decomposition of NRBB

The results in table 8(c) show that in the first year, NRBB own shock is explained by 96.63 percent but reduced to 43.03 percent in the last period horizon. RUTP plays more important role in forecasting and accelerating NRBB.

Table 8c: Results of Variance Decomposition of NRBB

Period RUTP	S.E.	FID	AGRIC_TL	NRBB	RLDR
1	2.701957	3.252017	0.113399	96.63458	0.000000
2	3.874771	10.99550	2.316025	59.36632	0.001373
3	3.968288	11.96109	2.573282	57.26915	0.095809
4	4.102069	11.83065	7.822304	53.59463	0.090130
5	4.221013	11.24826	12.73244	50.70439	0.103668
6	4.328753	10.76502	16.57369	48.25890	0.136746
7	4.418856	10.69803	19.32696	46.31290	0.165364
8	4.491372	10.67243	21.38200	44.83542	0.172328
9	4.543776	10.58118	22.85856	43.81191	0.176399
10	4.584715	10.45350	23.96732	43.03559	0.179025

Source: Author's Compilation, 2018

4.8.4. Variance Decomposition of RLDR

In table 8(d) below the RLDR displayed a similar pattern to AGRIC_TL where its own shocks also account for a disproportionate share of the total variation. The contribution of its own shock is 99.24 percent in the first period and falls to 79.95 percent in the tenth period horizon. The contribution of the other 4 variables is marginal with FID accounting for 10.35 percent of the variation in the tenth period.

Table 8d: Variance Decomposition of RLDR

Period RUTP	S.E.	FID	AGRIC_TL	NRBB	RLDR
1	52.15614	0.556666	0.197150	0.000496	99.24569
2	57.32404	3.302972	0.417075	0.215776	93.69831
3	60.88164	7.035363	1.646437	1.475562	87.74447
4	63.02940	6.597111	3.499830	2.289566	84.85701
5	64.13515	8.573758	4.347040	2.219812	81.97581
6	64.91799	10.06816	4.248440	2.250634	80.60640
7	65.04076	10.20056	4.353430	2.244989	80.38072
8	65.11393	10.22504	4.483273	2.247273	80.21907
9	65.19475	10.32561	4.549136	2.241761	80.04152
10	65.23113	10.35283	4.596151	2.246727	79.95231

Choleky Ordering: FD AGRIC_TL NRBB RLDR RUTP

Source: Author's Compilation, 2018

4.8.5. Variance Decomposition of RUTP

The contribution of RUTP to its own shock is 94.15 percent in the first period and falls to 38.88 percent in the tenth period horizon. The contribution of the other 4 variables is marginal but AGRIC_TL accounting for 54.5 percent of the variation is evident that it is more important in determining RUTP.

Table 8e: Results of Variance Decomposition of RUTP

Period RUTP	S.E.	FID	AGRIC_TL	NRBB	RLDR
1	0.272132	0.736523	0.019283	4.097627	0.997255
2	0.330553	0.864506	3.414243	10.14580	1.771273
3	0.404974	0.591685	13.88543	12.24676	2.433954
4	0.463074	0.487535	23.03550	11.05748	2.087976
5	0.530135	0.372324	30.71203	9.364500	1.651763
6	0.597892	0.357034	37.38890	8.125079	1.335888
7	0.668166	0.416123	43.13198	7.198825	1.109233
8	0.736888	0.504004	47.84760	6.435805	0.930966
9	0.804282	0.588299	51.56125	5.790338	0.788377
10	0.869959	0.666629	54.51764	5.263104	0.676959

Source: Author's Compilation, 2018

4.9. Impulse Response Function Analysis

The Impulse Response function which is normally used to detect interaction among variables simulates over time the effect of a one-time shock in one equation on itself and on other equations in the entire equation system. The estimated generalized impulse response functions (IRFs) results are summarized in figure 2 below. From the graph results of impulse response, financial development responds both positive and negative way depending on time period, due to the shock of NRBB, AGRIC_TL, RLDR and RUTP.

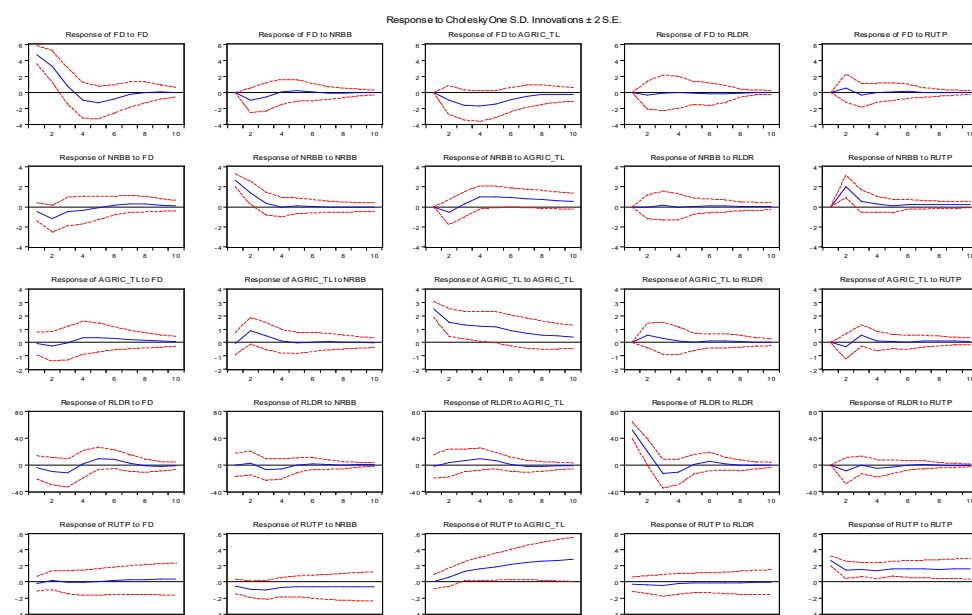


Figure 2: Generalized Impulse Response Functions Graphs for FID, NRBB, AGRIC_TL, RLDR and RUT

Source: Author's Computation, 2018

5. Conclusion and Recommendations

5.1. Conclusion

In Nigeria the slow pace of financial development has made the activities of rural financial system not so encouraging because the current rural financial institutions are unable to meet the multi-layered and diverse demands for rural financial services. The analysis demonstrates that there is a long run relationship among the variables. Also, the VEC results indicate that FID, RLDR and RUTP equations constitute the true cointegrating equations. The variance decomposition results show that the predominant sources of financial development variation are due largely to "own shocks" and other variables' innovations. However the results show only small marginal contribution of RUTP to FID and even negative contributions of NRBB, RLDR and AGRIC_TL to FID due to small number of rural bank branches, low level of rural deposits which also discourage bank lending mostly agriculture credit. The Granger causality test shows that there is short-run uni-directional causal relationship between NRBB and RUTP. The study concluded that access to financial markets is still limited in the rural areas as a result of lack of inclusive rural financial system in Nigeria. The policy implication of this finding is that for sound financial development attention must be given to the level of development of the inclusive rural financial system as it may boost the capital accumulation efficiency and/or increase the level of savings and thus investment, as suggested by McKinnon (1973) and Shaw (1967).

5.2. Recommendations

In the light of the above findings, the following recommendations are made:

- Attention should be given to the complementary and coordinated development of financial reforms so that an inclusive financial system can be attained in rural Nigeria.
- Increase the capacity of a range of financial service providers to serve rural and remote areas.
- There is need for Central Bank of Nigeria to encourage capital formation as well as the supply of credit facilities through formal financial institutions in the rural areas.

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MODERN STRATEGIES FOR THE PERFORMANCE IN THE ORGANIZATION

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Abstract: *The elevation of business is one of the key objectives while starting or running any business despite of its type and the business model. There are assorted strategies to escalate the business performance which are generally adopted by the board of directors and which directly or indirectly affect the overall business of the organization. The modern strategies for the organization performance may include the additional tie-ups and the associations with the other organizations. In addition, the approach of competitive analysis is also adopted. This manuscript is presenting the approaches and strategies for the performance elevation in the organization.*

Keywords: *Business Performance Strategies, Corporate Performance, Organization Performance Strategies.*

JEL Classification: M41.

1. Introduction

The growth of any business organization depends on its product line as well as the services with the associations and rich market survey. There are assorted factors which affect the overall performance of any business (Means, G., 2017).

2. Business Diversification Strategy

Business diversification strategy is defined as a practice under which a corporate enters a new industry or market which is different (may be similar one) from its core business (Burke, W.W., 2017; Pedersen, E.R.G., 2018, Mackey, T.B. et al., 2017). It can also be seen through, the variations between businesses, within the company. The degree of diversity is primarily determined by two factors namely the degree of difference in various dimensions of product produced and the number of dimensions in variation like customer type technology used etc. (Mackey, T.B., 2017)

Out of several reasons for the corporate to diversify the primary reason is reducing risk of relying on only one or few sources of income. Some other possible reason to diversify is avoiding cyclical or seasonal fluctuations by producing goods or services with different demand cycles, achieving higher growth rate and countering a competitor by invading the competitor's core industry or market (Sakhartov, A.V., 2017).

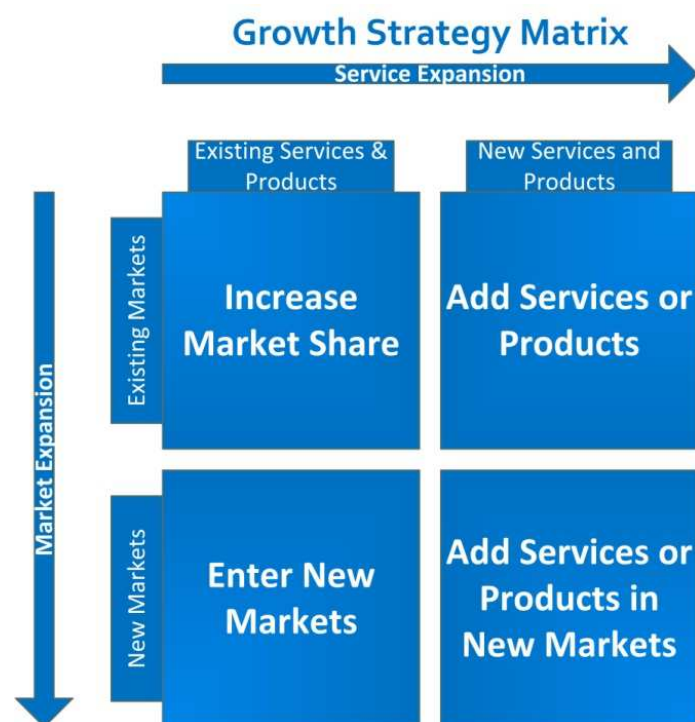


Figure 1. Growth Matrix in the Business

		MARKET	
		OLD	NEW
PRODUCT	OLD	PENETRATION	MARKET DEVELOPMENT
	NEW	PRODUCT DEVELOPMENT	DIVERSIFICATION
	NEW TECHNOLOGY	TECHNOLOGICAL PRODUCT SUBSTITUTION	HIGH TECHNOLOGY

Figure 2. Evaluation Matrix for the Market Penetration

A number of studies have hypothesized that diversification improves profitability through economies of scope by pre-empting the product space. All though the views on the phenomenon is very mixed, one possible explanation by famous work of Scott which demonstrated three effect of diversification. The first one is that it may generate multi market economies thereby increasing profit. It may also increase the number of contacts between the businesses, thus increasing chance of collusion. In addition, it can also facilitate the transfer of resources into more profitable markets thereby overcoming the problem of entry barrier and that of reducing profits.

When a corporate chooses to diversify, it faces a decision as to how related the new business is to the existing businesses of the corporation. Strategic actions are aimed at creating value for the organization. Therefore, it is important to look at the value creation rationale of diversification. Diversification create value when economies of scope exist among the multiple businesses in the organization, and exploiting these scope economies can be done more efficiently by the corporate rather than by shareholders on their own. The general discussion on value creation in diversification sets the stage for the next important pasture for the instructor – outlining the key elements of economies of scope.

The strategy of diversification is indeed not rare. The inimitability of a corporate diversification strategy depends upon the economy of scope that is the focal point of the strategy. Core competencies and multipoint competition are obvious examples of costly-to-duplicate economies of scope, while tax advantages and risk reduction are typically less costly-to-duplicate economies of scope. In general, economies of scope based upon tangible resources are usually relatively easy to duplicate. In other words, if Procter and Gamble acquired Gillette to exploit economies of scope based upon shared sales force, Colgate- Palmolive can do the same.

Scope economies based on intangible resources particularly those based on tacit collective knowledge are much more difficult to imitate. The realization of capital allocation economies of scope require sophisticated information processing capabilities. Similarly, multipoint competition requires considerable coordination skills. Finally, to exploit market power, the corporate first of all must have market power advantage. In short, inimitability is not the same across the board; rather it depends upon the resources involved.

Instead of leveraging scope economies across businesses, a corporate may decide to grow and develop each of its businesses separately. It can replicate the success in one business to another, rather than look across businesses to leverage common activities. Strategic alliances are another substitute for growth through diversification. Instead of looking to share activities across two of its own businesses in the area of R&D or marketing, the corporate can enter into a marketing partnership with another corporate. By looking at diversification from the perspective of rarity and limitability, it can be said that corporate diversification strategy must have the goal of helping the corporate obtain a sustainable competitive advantage. This not makes a case for careful deliberation from the corporations point-of-view, it also reveals that the VRIO framework is applicable in a variety of strategic situations.

Diversification strategies are used to make bigger business operations larger by adding up markets, products, services or stages of profit to the on hand business. The rationale of diversification is to permit the companionship to enter lines of business that are dissimilar from existing operations. Diversification is a form of growth strategy, but cannot be a guaranteed route to success. Probable growth also increases earnings, but only in strenuous industries. However, substituting growth

rates of the trader business themselves do not have an effect on fallout much, signifying that own-growth rates possibly will certainly be sensible alternatives for demand growth.

Generally, growth strategies occupy an extensive supplement in performance objectives such as sales and/or market share, away from past stages of performance. Many corporates follow one or different types of growth strategies. One of the main reasons is the outlook held by many investors as well as corporate is that 'bigger is better'. Growth in sales is over and over again used as a gauge of performance. Still if profits stay behind, constant or turn down, an increase in sales satisfies several people. The statement is frequently completed that if sales increase, profits will ultimately go after.

These are some of the main reasons in the last five decades the strategy researchers have studied corporate diversification decisions, and several relationships have been examined consequently. Investigation and research have connected diversification strategy to a variety of outcomes together, but not limited to, corporate economic performance, capital structure and corporate restructuring. In adding together, strategy research has included business and manager characteristics as determinants of diversification strategy. On one hand the diversification literature, studies the differential effects of related vs. unrelated diversification strategy and the corporate performance had proved to be an admired research area. Nevertheless, a few strategy relationships have acknowledged adequate intellectual attention to validate a quantitative integration of research results. The relationship between diversification strategy and corporate performance is one such strategy connection for which amalgamation of results is defensible and potentially helpful of dissimilar business groups. The effect, in fact conveys that geographic diversification permits business groups to make use of their core competencies and distinguishing group ability crossways units in diverse international markets. Worldwide revelation might have also provided a wider pedestal of markets for obtaining returns from modernization and offer new market opportunities.

The standard work of has provoked many readers and policy makers to recognize the capital structure decisions of the corporate. An in depth literatures review discussed theories, interpretations such as static buy and sell off, group cost and empirically tested these theories to be acquainted with aspects influencing capital structure decisions of the corporate. The diversification strategies assist business to improve their financial corporate performance. In fact diversification strategy has been revealed to be an imperative element of capital structure measured the impact of diversification on the monetary option of the corporate subsequent to scheming intended for additional most important elements of capital structure Chen from his findings suggested that the costs of corporate diversification dominate the benefits of corporate diversification and highlight the importance of diversification strategy in affecting the market valuation of R&D innovation. Investigate the majority of different strategies are restricted to developed nations, while of behind there is rising attention in assessment of developing countries.

3. Business Performance and Diversification

Large multi business establishments have been observed to develop and exploit corporate level distinctive competencies and enhance their performance. The corporate level distinctive competencies / performance relationships were found to

vary by type of diversification strategy but not by type of corporate structure. Additionally, only a small relationship was found to exist between diversification strategy and corporate structure. The specific relationships between corporate level distinctive competencies and performance and their normative implications are explored and are discussed further.

While assessing the relationship between diversification had defined diversification and confirmed that measuring its associated returns is anything but straight forward. Research in the management field and a fair proportion of the work in industrial organization has searched for relationships between a business total amount of diversification and its overall profitability. In contrast, work in the agency-theoretic tradition has focused almost exclusively on mergers and acquisitions—changes at the margin, rather than evaluation of a business diversification as a whole.

Each of these approaches has its merits and drawbacks. Diversification has been included in a number of standard industrial organization studies which examine the relationship between corporate performances.

Wan (2011) suggested that diversification is a strategic choice of a corporate to improve performance. However, there are opposing views in studies examining diversification and performance relationship. The first view favors focused corporates while the other favours diversified business. Amit and Livnat (1988), suggest that both of these strategies are pursued based on two motives which are synergistic and financial motives. If business have synergistic motive, they may pursue focused strategy but if they have financial motive, then the diversified strategy would be adopted and is more advisable. Nevertheless, pursuing these strategies to increase performance would not assure obtaining the expected result as debate over which strategy is most suitable remains ongoing.

4. Approaches towards Business Performance Un-diversified Business

Focused strategy is defined as business activities within corporates respective resources but products or services offered may differ from currently served (Johnson, Scholes and Whittington, 2008). This is a strong recommendation which is proposed by all the researchers who belong to this school of thought, where corporates should concentrate on their core business in order to perform better. They concluded that focused strategy is expected to enhance performance as business operation is relatively close to the existing business. This argument is supported by empirical evidence from developed countries. They suggest that focused corporates perform better than diversified corporates because they are more efficient in converting underutilized resources to achieve maximum performance. Another reason is associated with market power whereby focused corporates could use predatory pricing to deter and eliminate competitors from their respective industries (Montgomery, 1994).

Montgomery (1994) supports this view by showing superior performance of focused corporate opposite to diversified corporate. Better advantage of focused corporates could be the key factor that led United States' corporates to diversify around their core business in 1980's as seen in the pattern of profitability premiums also supported by empirical tests conducted by (Rumelt, 1982). It seems that focused strategy was the appropriate diversification strategy to be implemented at that time. Similarly, Tsai (1994), working on the similar lines, tried to derive a relationship between construction corporates financial performance/risk and there diversification

strategies. The research suggests that for maximization of corporates in construction business a single business strategy is a good choice.

However, Johnson et al., (2008) suggested some other possible causes could impact performance of focused corporates. The first cause could be time and cost related, making it difficult to determine the effect of synergy on corporates. While the second cause could be unwillingness of managers to share resources as each business division has respective performance measurement to achieve and sharing of resources complicates such measurement.

5. Diversified Business

The second stream of evidence indicates that diversified strategy could be used to enhance corporate performance, among them (Gourlay and Seaton, (2004). Diversified strategy seems to dominate corporate action from the middle of twentieth century till date in US as shown by Rumelt (1982). However, this behaviour of US corporates changed due to new control and policy introduced by the government in the early 1980's resulting in widespread sale of non-core asset. Diversified strategy is identified if corporates have operations in more than one industry. Bettis and Mahajan (1985) from their research also suggested that diversified corporates have significantly able to reduce their systematic risk and increase returns. The author had also very strongly confirmed that there is still some level of correlation between related diversification and corporate performance but the unrelated corporate performance bears a negative correlation with diversification.

Agency cost, cash flow and transaction cost are the three most important reasons that have been mentioned by Amit and Livnat (1988) on why corporates pursue diversified strategy. As mentioned above, agency cost arises from conflict of interest between managers and owners of corporates. Nevertheless, Aggarwal and Samwick (2003) argue that managers could not get involved in an industry that is totally different from existing operations without the owners' permission. The second reason is associated with surplus funds available to corporate. Extra money means corporates are not tied to debt obligations; therefore, they could diversify their business with the expectation of improving performance (Hitt, Hitt and Hoskisson, 1992). Finally, the third and possibly the most important reason as mentioned by several researchers, linked to transaction cost where certain assets could not be rented or sold; hence, diversified strategy becomes an option to efficient use of those assets (Amit and Livnat, 1988).

Kim (1989) advocates that corporate in developing countries would be better off by adopting diversified strategy due to the presence of the commodity sectors. Most empirical studies relating to diversification and performance were done using manufacturing sector data particularly in developed countries. Therefore, result obtained in developed countries may not be applicable to developing countries. In addition, presence of market imperfections in developing countries could benefit diversified corporates.

Leontiades M. (1979) have theoretically emphasized that unrelated product diversification leads to success and have discarded some of the old theories and concept in the area. The researchers concluded that conglomerate corporates are not inherently superior or inferior to horizontally or vertically structured corporate. Furthermore, Geringer et al., (2000) who studied Japanese corporates suggest that every country has their own uniqueness which could explain variation in the result

obtained. Lee et al., (2003) found similar finding when they performed a comparative study between Korean and United States of America (US) markets during the period 1992 to 1996. Diversification creates positive results for Korean corporates and vice versa for US corporates. This finding seems to be the reason why corporates in emerging markets pursue diversified strategy. It is possible that differences in executing diversification strategy brought about contrasting outcome between Korea and US.

6. Other Factors Affecting Business Performance

Contrasting evidence thus far may be due to different variables being used in respective studies. There are various studies which have examined variables that may explain corporate performance. However, these studies offered mixed results, in a way that most of the researchers concluded from their studies that diversification strategy can lead the company's profitability to a new paradigm and thus every company should try to diversify based on the specificity of the corporate. On the contrary there are some very strong objection to such a research in which some researchers claim that the research conducted by them proves a very weak or negative relationship between diversification and market performance of the corporate. The justification offered by them is that a company can gain expertise in manufacturing of only one type of product in such situation if the company starts making more than one product than the core competency of that company tends to lose.

There are even some researchers which claim that if a company follows related diversification strategy than there are chances of profit where as those companies whose line of product are unrelated shows a negative response as far as profitability or market value is concerned. One major problem is the existence of market imperfections brought about by economical, political and operating environments in each country (Lee, 2003). Kracaw, Lewellen & Woo (1992) support those findings in which they mentioned that inflation variable also influences performance. Apart from inflation, leverage also significantly influence performance.

Due to the strategic management approach, corporate strategies despite being based on various sets of management guidelines identifying the appropriate scale and scope of the firm, all converge in dealing with conflicting demands of synergies and responsiveness with respect to allocating resources. Successful corporate strategies are the result of organizational capabilities or competencies that allow firms to exploit potential synergies that large size or diversity can offer. On one hand, the synergy of interrelated businesses within a diversified firm brings in the benefit of economies of scope which arise from sharing both common tangible inputs such as markets, distribution systems, product and process technologies, or manufacturing facilities (Ansoff, 1965; Rumelt, 1974; Teece, 1980), and intangible assets such as brand names and know-how, managerial capabilities and routines and repertoires (Bettis, 1986; Grant, 1988). The more interrelated the businesses of a firm, the greater the potential for organizational synergy.

Firms are assumed to have different innovative capabilities that lead them to pursue different types of product diversifications. A firm with a diversified portfolio of products may be better positioned to determine the general applicability of new ideas than a firm with a narrower portfolio of products, because it can capture internal knowledge spillages.

The present study tries to derive relationship and impact of significant economic variable, like diversification strategy on capital structure, systematic risk and corporate performance. This has been achieved using three models namely, leverage model, market risk model and corporate performance model.

The Dependent Variable for this model is Capital Structure (Leverage) which is alternatively measured by Total Debt to Total Assets (TDTA), Total Debt to Total Equity (TDTE), Long Term Debt to Total Assets (LTDTA), and Short-Term Debt to Total Assets (STDTA). The Independent Variables on the other hand are Diversification, Corporate Profitability, Corporate Growth, Corporate Size, and Corporate Asset Tangibility. The interrelationship between the variables can be seen from the following figure:

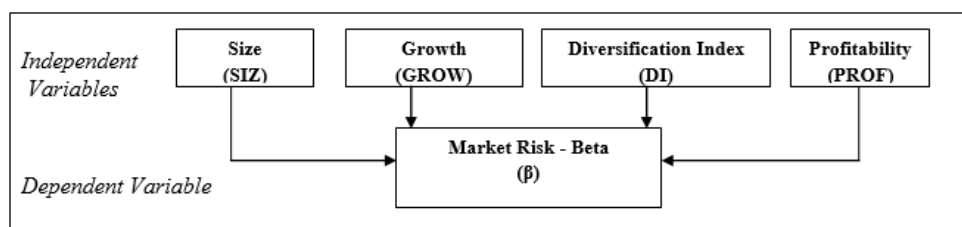


Figure 3. The Market Risk (Beta) Model

The Dependent Variable of this model is Market Risk and the value is alternatively given by Systematic Risk i.e. Beta (β). The Independent Variables remains as Diversification Index, Corporate Profitability, Corporate Growth, and Corporate Size. The Dependent Variable for Corporate Performance Model is corporate performance value which is alternatively measured by ROA, and ROE. The independent Variables being Diversification Index, Corporate Leverage, Corporate Growth and Corporate Size.

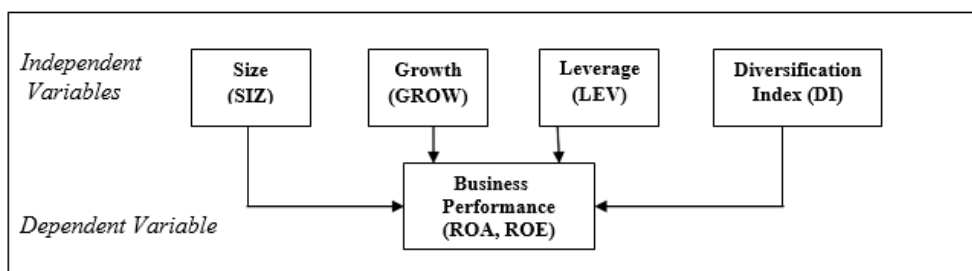


Figure 4. Variables and the Business performance

Diversification (measured by (1- Herfindahl Index)):

$$HI = 1 - \sum_{i=1}^N S_i^2$$

Where, S_i^2 is the market share of corporate i in the market, and N is the number of business points.

Total Debt to Total Assets (TDTA)

Total Debt to Total Equity (TDTE)
 Long-Term Debt to Total Assets (LTDTA)
 Short-Term Debt to Total Assets (STDTA)
 BETA (Market Risk = Systematic Risk): $\text{Cov}(R_i, R_m) / \text{Var}(R_m)$ where, R_i is the daily return on security i and R_m is the daily return on stock weighted market index.
 ROA (Return on Assets): Profit after Tax / Total Assets
 ROE (Return on Equity): Profit after Tax / No. of shares outstanding
 PROF (Profitability): EBIT + Depreciation / Total Assets
 GROWTH (Growth: Total Assets – Book Value of Equity + Market Value of Equity / Total Assets)
 SIZE (Size): $\ln(\text{Sales})$
 AT (Asset Tangibility): Fixed Tangible Assets / Total Assets.

7. Conclusion

Business financial performance is a very important parameter in gauging a corporate activity. But there are various angles by which the academicians, researchers and policy makers look into it. Increment in corporate assets used to be the most important parameter to assess corporate performance, the concept changed to share price maximization concept and other such parameters. There are several parameters of corporate growth and development like use of latest technology, operational efficiency, customer satisfaction other than market share and increase in the share price of the corporate which can be considered by the organizations as the strategic points.

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WORK EXPERIENCE – GOOD PRACTICES FOR PRESENTING APPLIED METHODS

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Abstract: *One of the most outstanding difficulties of business life nowadays is how the lack of workforce is treated. Thanks to this organizations put more and more emphasis on keeping the current staff besides recruiting the right employees. The aim of the study is to highlight a novel approach in the success of keeping the employees where the emphasis is on the experience of work – and within this to help the flow experience. This is used consciously by more and more organizations to strengthen employee loyalty. Based on secondary research the study collects corporate examples related to organizations which started the conscious experience-centric enterprise programs. The introduction of the right practices through company examples offers an analysis which helps summarise the possibilities and the practical realization. As a result of the study, it can be stated that the experiences provided by organizations can be separated according to different target groups. Three categories can be considered including existing employees, potential and those ones who are leaving the company. In case of all three target groups, several applied opportunities can be found through the corporate examples examined. Each group has got special needs so it is needed to use different methods to achieve the members of this. We can say that conscious organizations already start the influence through experiences in the job searching phase, which is often helped by experts who are specialized in this. After having employed these people there is an unlimited palette of possibilities to be used through gamification to internal organizational competitions to virtual reality. In several cases, the process does not stop even after the employee has left the company so that the company's reputation is not harmed by a bit and to give the possibility of later employment. This trend would appear more consciously in Hungary too thanks to the multinational companies and organizations with an advanced approach.*

Keywords: *employee retention; experience; flow; HR; trend.*

JEL Classification: J28; J53; O15.

1. The Purpose of Work Experience and its Possible Target Groups

Nowadays, it can be observed that the borders between working hours and spare time become increasingly blurred thus the forming of work environment requires a paradigm shift and innovative way of thinking from both organizational and individual points of view (Szabó, 2013). Based on the research of Institute of Public Relations

of 2017, the organizations should apply the linkage with job along positive emotions as a tool which results in a more committed and more effective work and can inspire others as well. It follows what important role the human feelings play in establishing the everyday employee experience (Scott, 2017). Based on Gergely – Pierog (2016), impressions experienced at the workplace are naturally influenced by the style of management to a large extent; one of its appearance forms is the motivation which may come even from the conscious establishment of experience. Emphasis of the experience linking with job has attracted the interest of professionals and the media in Hungary in recent years. At the same time, a multitude of foreign examples is already available but more and more people also follow the trend in Hungary and begin to establish own systems along principles which are already in places. Consequently, the appropriate experiences largely influence the employees' satisfaction. Nevertheless, it should be specified that not only the money will be important for the employees of the 21st century from the aspect of satisfaction (Juhász, 2016; Szondi, 2018), therefore, strong emphasis should be placed on the conscious organizational establishment of experiences. Insofar as the focus of the new possible HR function is on the conscious establishment of experiences related to work and employer and the available surveys are taken as the basis then the HR shall be able to aim at three target groups for the organizations: the existing employees, the potential employees and the leaving workers with the same emphasis (Figure 1).

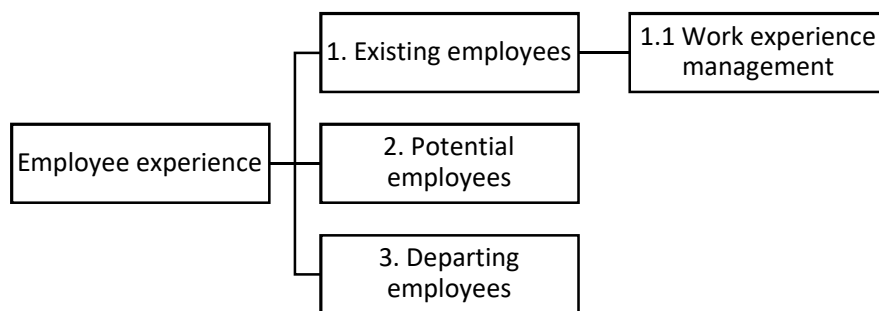


Figure 1: **Different areas of the operation of employee experience**
Source: Own editing, 2019

In all three cases, the application of different methods would be the most expedient which means that different HR functions can be attached to disparate target groups due to the differing assets and the integrated operation. However, from the point of existing employees' view, the employee experience can be dissolved further and, in case of the employees who are already work for an organization, can be completed with a rethinking of activities arising from work explicitly; this duty would be fulfilled by the work experience management as a possible new HR area. During the establishment of employee experience, the primary target group consists of the colleagues belonging to the existing workforce because they are those ones who can be directly and immediately reached thus they can be affected in a direct way and within a short deadline. To this end, a certain part of companies devotes energy to that, in one respect, the employees will enjoy the environment and, on the other hand, will face new types of challenges in terms of technology as well; all so that the

workers do not only provide good performance but also love their workplace (Vendler, 2015). Consequence of this is that everything what happens to a worker from discovering the job advertisement of an enterprise until leaving the company can contribute to the formation of employee experience. In case of several companies, it is an operative practice that the gyms, foosball tables, beanbag chairs, free massage and healthy food representing the employee experience are recognized as a kind of corporate allowance; yet, the work experience management should go beyond a little bit. Aim of the work experience management should be, as the naming also shows, that the work can metamorphose into a kind of experience which is accessible thanks to our workplace and each colleague should desire it. Therefore, in this case, essence of the task is to find those points in the course of planning the work and job which can be transformed without moving the efficiency in a negative direction but, by means of the execution, it may become experiential to carry out a task which was previously a routine one in the given case. The flow experience determined by Csíkszentmihályi (2010) can be closely related to the above-mentioned conception which was known as the perfect experience by the society. Essence of this state is to form a situation when we ourselves direct our actions and we control our own destiny. On these rare occasions, we almost become transfigured and feel such a magnificence which will be a milestone in our memories and result in that we want to reach this state as frequently as possible. However, it is important to emphasize that we do not often undergo these moments, the most beautiful experiences of our life, in passive, receptive and relaxed state. The most beautiful moments usually occur when someone is able to endlessly maximize his/her physical or mental performance with intense will in order to accomplish a difficult but important task. The perfect experience is therefore something that does not just happen to us but rather we intentionally create it. Following this logic, we may arrive as far as that the work itself as an intentional activity can also help us to feel the flow. And if we think of the fully perfect experience then, based on the theory of Csíkszentmihályi, we will perform the given activity not because we expect anything in return but just for the reason that the given activity itself brings joy to the person performing that. And this state can buttress the reduction in the importance of cash benefits against providing an optimal experience.

2. Opportunities to Establish Work Experience, through Organizational Examples

2.1. Opportunities to Establish Employee Experience for Existing Employees

In case of really innovative companies, such as *Airbnb*, the provision of experiences appears at the level of strategy in a manner that the HR director is already called "Employee Experience" director and the purpose of HR is considered to ensure the formation of employee experience (Morgan, 2016). As well, the whole HR department is referred to as "worker experience" department. Travel credits assist to enable the employees' work to be transformed into real experiences; the workers get those credits in exchange for their work and they themselves can also redeem those ones (Airbnb, 2018). Beyond that, the company has also achieved significant results concerning the freedom from discrimination and the diversity which are analysed in detail in Murphy's research (2016) as well. The research states that the company presents itself in 191 countries and the organization unequivocally places emphasis on the advantages of multi-ethnic employee application during its operation.

Insofar as the establishment of work environment is primarily scrutinized then, in addition to the aforementioned travel site, the company *PREZI* can be a good example in the domestic pioneering. Namely, the free corporate restaurant service (breakfast, lunch) is deemed to be essential in this organization; in particular, healthy nutrition is important as well (for instance, 40 kg orange per day is consumed in the form of fruit juice). There is no question about modern environment; a wide space is available where the people wishing to work alone can comfortably sequester themselves, either to the top of a tower or a nook covered by artificial grass, while the environment favours the work as well. The tables separated by green plants can loosen the usual workplace atmosphere which is further helped by the area established for graffiti where the independent creation is free. In the course of shaping the office, different fantasy names help to enhance the uniqueness, such as "Cabinets of Curiosity" where lost and found objects are placed. In the spirit of a healthy lifestyle, the "scooter focus" is at the centre since the majority of colleagues go to work on two wheels but the spaces are such that the moving can be carried out by scooters. The in-house kindergarten and the flexible working hours which take the deadlines into consideration as well as the light atmosphere appear as further factors when establishing the enjoyable working environment (Nemes – Mészáros, 2016; Prezi.com, 2018). SAP has transformed its internal system into cloud-based ones in the spirit of an experience work, due to which the labour retention force of SAP is 93.7% based on the surveys. In recent years, SAP has received several recognitions, including the Reliable Employer award in Hungary in the summer of 2017; this award was founded by the German-Hungarian Chamber of Commerce (Kis, 2017).

The BBSC (Budapest Business Services Center) always had policies which are really family-friendly by helping to keep work-life balance in everyday life. How they do this? It is totally based on employee feedback with the aim of recognizing the employee's personal needs. According to this, the work-life balance actions appear at a strategic level, so the wellbeing programs like the free fresh fruits for everybody, or the private health care insurance which is extending on other family members are really popular opportunities for the employees. Moreover, there is an outstanding active parental community who are organizing camps for workers' children during school holidays. Besides this, the company supports forms of flexible work and the final goal is to provide a teleworking opportunity for every employee of the company (AON, 2018).

In addition to the general targets (retaining, loyalty), *Walmart* has made the establishment of work experience compatible by elaborating the physical workers' compliance with the safety standards. All this has been achieved via a mobile application. Aim of the company giant employing thousands of persons was that the very dispersed labour force shall meet the safety standards. For this purpose, such a form of training has been chosen which takes only 3 minutes per occasion and it has been built in the employees' daily lives and workflows. As a short-term result of it, employees within the organization have not just talked about who is at what level during the game but also about why it is important to comply with these rules. The results were quantifiable which means that the accidents have decreased by 54% after the gamification (Heong, 2015a).

A Spanish beverage distributor company, *Pernod Ricard*, has placed the employee succession planning at the centre of the establishment of work experience. The asset has been introduced via a telephone application. Its aim is that the managers of

future can try themselves and Ricardo, who is a tamagochi, and manage him during the work so that he can stand firm in different corporate situations in the most effective way. As a result of the development program, the managers had an overview of how to operate the structural strategy, how to manage and control the people, how to form the managerial competences, how to define the external and internal motivation and how to raise awareness of the efficiency of creative solution opportunities as a consequence of the successful task performing (Pernod – Ricard, 2016).

2.2. Opportunities to Establish Employee Experience for Potential Employees

Dreher, as a well-known beer factory tried to develop their recruitment system by giving experiences to applicants. Instead of a regular job fair, they organized it at a pub after they surveyed the preferences of potential applicants. It was really successful and not only because of filling numerous positions through this action but at the same time, the event was a perfect teambuilding opportunity for the companies' workers as it was organized by volunteers giving them an unforgettable and unusual corporate event. The practice of Audi Hungary is also a good example. Because of the new challenges of the labour market they had to create a new HR image which became their own. The new slogan of the recruitment is – „Some call it work. We call it: passion” – under this brand they use story-telling forms straight from the colleagues about their personal experiences connecting to work. By this way, the company could make a really honest message to the potential and existing employees demonstrating the common values of the company and the workers. Due to this program not only the visitors of the carrier site but also the number of job applicants increased (AON, 2018).

Consequently, the application of playful solutions is considered to be a really effective method. In case of organizations applying the gamification, it can be said that the method has been also considered successful in areas which are very different from each other. Beyond that the gamification has proved its effectiveness in case of consumers, it can have such a good effect on the employees as well. However, initiations buttress that it works not just in case of existing employees but it can be applied when attracting the future potential workers as well. For instance, *Metropolitan University of Budapest* has developed an online tamagochi which supports the students interested in the profession of human resource in choice of career. Aim of the game is to confront the persons interested in the profession with the problems and difficulties of the profession and to provide feedback about its performance in the course of solving certain tasks. And, the character selection at the beginning of the game can forecast the diversity of labour market for the participants and the fact that everyone has different strength when performing a task (HR Portal, 2018). PWC has developed a game for similar purposes; its name is Multipoly Next. This is a kind of two-round simulation opportunity – based on, in one respect, online-, on the other hand, personal participation – which appears, as a part of the procedure, in the course of the virtual applying for a job offered by PWC. Language of the game is English thus it immediately serves as a filter during the future selection. Those who perform well in the online test can personally present their knowledge and interest (Heong, 2015b). Due to the real problem of labour shortages, there is another change which is aimed at the purpose that the organization wants to grant the interested employer positive experiences already during the selection. On this basis, *Profession*, as the leading Hungarian job search

portal placing emphasis as well, does not only pay attention to the response to incoming CVs when contacting but also describes the procedural process in detail in the feedback, by means of which the interested persons know what to expect. In many cases, this is followed up by a telephone interview where the presentation of organization is also highlighted in addition to getting to know an applicant. After a successful interview, the affected persons are informed in another detailed description e.g. whom they will personally meet in the interview, what questions they expect, how they can get to the office, where they can park and meet the colleagues of Profession deal with the case as if they sent an invitation to a business partner. In case of the personal meeting, the persons working in the organization take care of the comfort of a potential interested worker where they deliberately give the applicant a period of time to feel comfortable a little bit and be able to observe the work in the organization. Regardless of the fact that a part of the interviews does not come to a close successfully, a stressed importance is paid to the respect which is also reflected in the feedback. They do it consciously because they know that every candidate carries the company's reputation which is spreading very quickly. As a part of the feedback, the company-related experience is fortified further by the fact that the interviewees are allowed to evaluate the process in which they participated and how they felt during the selection (Istók, 2017a). Consequently, the "Candidate experience" means that the employees should be regarded as a market which operates likewise most areas of the private sector thus the applicable tools are similar, therefore, the pronounced part of the process starts from the employer brand and it should start from the awareness-raising. In case of the youngest generations of the labour market, Profession considers the informal tone and the spirit of partner important where the applicants, when searching for jobs, do not only face the expectations but also the things that the employers can provide. Through a regular contact, all these are continuously strengthened on different interfaces where this social group can be easily addressed. However, it is recommended to apply these assets only in the case if the atmosphere is equivalent in the affected organization so that the credibility cannot be impaired during a personal meeting (Istók, 2017b).

2.3. Opportunities to Establish Employee Experience for Departing Employees

Nowadays, topic of the employee experience has also become such central in Hungary that one of the largest HR service-providing companies, AON Hungary, has started a national research (2017). As a result of the research, it has been stated that the integrated operation of HR means that the full cycle of employees should not be managed in separate systems but the selection, entry, integration, performance evaluation, allowances or even the alumni programs after leaving should be interlinked into one strategy (Filius, 2018). For instance, PWC Hungary has a functioning alumni program which has been established for those ones who worked for the company and contributed to the organization's development but have been carrying on their career in other areas of the market since then. In this case, the persons applying for the program become members of Alumni Club and are informed about the latest information, initiatives and events; the purpose of all is to establish and maintain life-long relationships (PWC Hungary, 2018). This experience can closely belong to the quality of dismissal process within the organization. That is to say, care shall be taken to ensure, as far as possible, that the departing workers cannot be injured in their humanity and their professional self-esteem cannot be

impaired either (of course, there are often exceptional cases when this is unavoidable due to employee behaviour).

3. Conclusion

The conscious establishment of employee experiences becomes increasingly decisive during the successful operation of organizations; there are several positive examples of its possible ways. When this is carried out, several target groups appear who require the same extent of concentration. From the lessons learnt through the accomplished programs, it can be ascertained that every target group has specifications along which different HR functions reach dominant situation in the course of establishing the processes. In a possible model, the target groups can be placed for the purpose of supporting the practical applicability (Figure 2).

It is important to emphasize that, in case of existing employees, it is expedient to detail the employee experience further and to examine the possibility how it can be unfolded as much as possible by rethinking the given persons' jobs, helping the individuals to undergo the flow experience at the highest possible degree. From this point of view, the job analysis and planning can be the primary HR function which is applied. Beyond that, the regular feedback, being combined with elements of the incentive system, can also provide a basis for the formation of a perfect work experience.

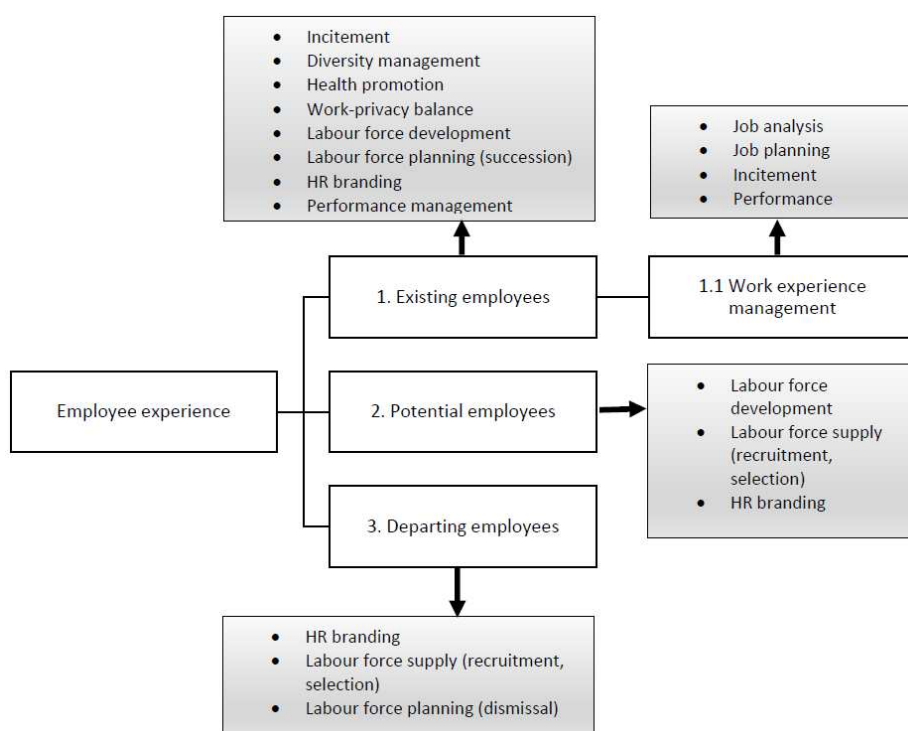


Figure 2: Classification of HR functions relating to the workplace-related experiences by target group

Source: own editing, 2019

From the point of view of experiences, in case of *existing colleagues*, the application of incitement- and diversity managements is buttressed up by the example of Airbnb. The methods applied by Prezi and BBSC stand out representing the help promotion and work-privacy balance. Efforts of Walmart on labour force development while efforts of Pernod Ricard on employee succession planning can be exemplary. By means of regular feedbacks, these developments can effectively contribute to the attracting and retaining abilities of an organization while building the corporate brand. When aiming at the group of *potential employees*, the experiences can appear expressly during the recruitment such as in case of the game applied by PWC where the labour force development was also an unequivocal achievement of the program. The conscious "experience creation" of recruitment and selection procedures can be built in several parts of the process by means of which the corporate perception is unequivocally outlined for those involved. For *departing colleagues*, in particular when they leave the company as a consequence of some kind of life situation and not due to performance problems, the alumni programs provide an opportunity by means of which the continuous contact becomes arranged and there will be an open opportunity for the persons to resume their career if they return to the company. Furthermore, a careless dismissal and a fair completion of the parting itself without prejudice of the parties can greatly contribute to the evolvment of an organizational brand as well. As a consequence of the fact that the target groups of workplace experiences can be unequivocally separated from each other, those related HR functions have become sortable which can be specifically applied in order to increase efficiency after an organizational awareness-raising.

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A REVIEW OF ORGANIZATIONAL AGILITY CONCEPT AND CHARACTERISTICS

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Abstract: *The current business environment has proven to be extremely interesting but difficult at the same time, with multiple challenges and opportunities, but also threats for some of those who are currently working. Organizational agility has become a necessary capability for organizations wishing to survive and succeed in an uncertain environment characterized by numerous and sudden changes. The present paper aims to present theoretically the concept of “organizational agility” by performing a synthesis and description of the definitions given to the term, which we find in the recent specialized literature. The purpose of this literature review is to capture what is the current state of knowledge, to establish correctly the conceptual framework, all with the idea of further formulation of its own definition, but also of undertaking a practical research in the future. To research, I've reported articles found on Google Scholar over the last 5 years, 2014-2018, focusing on those in which the authors formulated their own definition of the concept. The study has shown that although there is no unanimous definition of the concept of “organizational agility”, it is approached as an absolute necessity for organizations seeking to be competitive in their field of activity. Most authors have defined organizational agility by reference to the role it plays in adapting to change or capitalize environmental opportunities, in gaining competitive advantage, and others have highlighted the need for agile human resources. At the same time, in a large number of works, organizational agility is defined by the presentation of its characteristics and the benefits that it presents compared to the traditional organization. By the way of realization, by presenting a sample of recent literature, the work contributes to the correct knowledge of the stage of defining the concept of “organizational agility”, to establishing its own area of interest but also to others interested in the field, being the basis for carrying out a practical study future. Of course this review of literature is limited only to the definition of the concept of “organizational agility”. Therefore, it cannot and does not attempt to be an examination of the whole field of literature, but a sampling of some representative works for the field.*

Keywords: *agility; agile organization; organizational agility; agile workforce; competitive advantage.*

JEL Classification: *D29; L29; J29; M19.*

1. Introduction

Words such as “agility”, “agile organization”, “organizational agility”, “agile methods” and “agile human resources” are very often used in specialized literature and in topics addressed by consulting firms or management studies in the field.

However, it can be observed that while at international level there are tens of thousands of articles containing the word “agile”, prestigious magazines, such as the Harvard Business Review, devote whole numbers to this topic, conferences on this subject, and for field specialists and managers has become a key word, used very often in their writings and discussions, at national level is not well documented in the literature.

At present, organizations operate in a very changing environment, requiring them to find fast, creative, innovative solutions to change in the environment in which they operate. On the other hand, a proactive attitude of companies is desirable at the expense of reactive behavior. Organizations have the opportunity to create the future and not just to remain passive in the expectation of the unknown. Of course, everyone has the choice of how to position themselves in front of this reality.

Organizations must have a high speed in decision-making, flexibility and adaptability, but also a highly skilled, creative, responsible workforce able to work well at a team. All of the above listed are definitely attributes of organizational agility.

So, the traditional organization has to acquire the characteristics of an agile.

It should be noted that although the concept studied is very much approached in the literature and the benefits of organizational agility are undisputed, at the practical level, studies have shown that very few companies meet the characteristics of agility. However, it is a plus that they have nevertheless realized its importance, with a large number of organizations being undergoing transformation.

According to a study by McKinsey, the prestigious McKinsey management consultancy firm, conducted in October 2017, only 4% of respondents' organizations have completed agile transformation to date and about 37% have agile transformations in progress.

In the following, for a better understanding and understanding of the concept, I will present a synthesis and a classification of the definitions given to the term “organizational agility” in recent literature, that of the last five years.

2. Literature Review

To know the current state of defining the concept of “organizational agility”, I have recourse to the identification of the articles dealing with this subject. So I've searched for them on Google Scholar, focusing on the last 5 years, period 2014-2018.

In the next step, from the multitude of articles generated by a simple search, we have selected them and discussed only those in which the authors have provided their own definition of the concept and have not, in turn, made just a synthesis of the literature. This search has been added to Google's search to identify consultants and bloggers interested in the topic.

Analyzing both, literature and the sites dedicated to management consultancy and studies or bloggers, we noticed an approach to the concept of agile organization from several perspectives:

- adapting to change;

- exploitation of environmental opportunities;
- achieving competitive advantage;
- the need for agile human resources;
- presentation of the benefits obtained in addition to those of traditional management;
- agile organization features.

All these aspects mentioned above are detailed in Table 1.

Table 1. The main idea caught in defining the agile organization

Definition perspective	Source
Adaptation to change	Business Dictionary, Linda Holbeche (2015), Hongyi Mao Huazhong et al. (2015), <u>One-Ki (Daniel) Lee</u> et al. (2015), <u>David Teece</u> et al. (2016), Jennifer Heckler and Anne Powell (2016), José L. Roldán et al. (2015), www.mckinsey.com
Opportunities	Katarzyna Ragin-Skorecka (2014), Linda Holbeche(2015), José L. Roldán et al. (2015),
Competitive advantage	Lidia Băjenaru et al. (2014), Dzone.com
Agile workforce	ManagementStudyGuide, Roy Wendler and TU Dresden (2014), Bohdana Sherehiy and Waldemar Karwowski (2014), Azam Kalantari Dehaghi (2014)
Benefits	Darrell K. Rigby et al. (2016)
Characteristics	Lidia Băjenaru et al. (2014), Goldman, Nagel and Preiss (1995), Krystian Pawlowski and Edmund Pawlowski (2015)

Source: Own adaptation based on information sources

One-Ki (Daniel) Lee et al. (2015) and Hongyi Mao Huazhong et al. (2015) emphasizes that “organizational agility is a significant business capability”, agile organizations proving successful in a competitive and changing environment.

“Organizational agility is often treated as an immutable quality, implying that firms need to be in a constant state of transformation.” (David Teece et al., 2016, pp. 13) In the Business Dictionary, “organizational agility” is defined in a complex way, pointing out that through its features, an organization can successfully cope with changes in business: “the capability of a company to rapidly change or adapt in response to changes in the market. A high degree of organizational agility can help a company to react successfully to the emergence of new competitors, the development of new industry-changing technologies, or sudden shifts in overall market conditions”.

Management consulting firms, such as the Management Study Guide or McKinsey, describe organizational agility by continually addressing the need for organizations to quickly and efficiently adapt to changes in the environment in which they work. It outlines the implications this process has on all systems in an organization: strategy, structure, processes, human resources, technology.

Jennifer Heckler and Anne Powell (2016) point out that organizational agility implies speed and flexibility in the processes, decisions and concerns of the company.

Linda Holbeche (2015) complements what has been said above, stating that the ability of organizations to respond quickly to sudden environmental changes must

also be joined by the ability to anticipate potential opportunities and take advantage of them. Thus, the chances of avoiding the threats that change imply are greatly increased.

In the same note, Katarzyna Ragin-Skorecka (2014) quotes Kidd & Karwowski (1994) in the "Agile Enterprise: A Human Factors Perspective" article, which states that the main objective of an agile organization is actually identifying the opportunities in the environment which activates.

So, in the opinion of the abovementioned authors, the agility of an organization stems not only from its capacity to adapt to change, but also in anticipating change and identifying the opportunities it can harness.

José L. Roldán et al. (2015), quoting Sherehiy, Karwowski, & Layer (2007) concludes that organizational agility can be approached from two perspectives:

- reactive aspect - organizational adaptability;
- proactive aspect - organizational flexibility.

Lidia Băjenaru et al. (2014, pp.109), in the article "An Interactive System for Assessing the Agility of a Virtual Enterprise", identifies "the overall agility features that can be applied in all aspects of the enterprise:

- flexibility;
- receptivity;
- speed;
- the culture of change;
- low integration and complexity;
- personalized and quality products;
- mobilizing essential skills."

Regarding the role of organizational agility in obtaining competitive advantage, it is pointed out in most of the papers dealing with this subject.

Lidia Băjenaru et al (2014, pp.109) also define organizational agility in terms of its role in gaining competitive advantage, the authors concluding that "Agility of the enterprise is perceived as the engine competitive dominance of organizations in an uncertain and ever changing business environment".

In many of the specialized papers analyzed, the contribution that human resources have in acquiring the agility of an organization is underlined. In the opinion of the authors, an organization can only be agile if its employees are also agile, i.e.:

- are creative and innovative;
- presents true knowledge in the field;
- are stimulated by the different challenges;
- have the ability to work very well in the team;
- are responsible.

Roy Wendler and TU Dresden (2014, pp. 1197) asserted that "The management of an organization has to understand that the organization itself cannot be agile, but its employees can be".

"Organizational agility requires development of an adaptable workforce that is able to deal with unexpected and dynamic changes in the business environment." (Bohdana Sherehiy and Waldemar Karwowski, 2014, pp. 466)

Azam Kalantari Dehaghi et al. (2014, pp. 62) states that, as far as human resources are concerned, an agile organization requires:

- "more professional staff;
- multi-skilled staff;

- with sufficient skills to adapt to constant improvement and fast developments inside and outside the organization.”

Goldman, Nagel and Preiss (1995, pp. 55) identifies four features of agility in an organization, similar to those previously presented in the paper, but emphasis is also placed on the important role that human resources have:

- “delivering value to the customer;
- being ready to change;
- valuing human knowledge and skills;
- establishing virtual partnerships.”

In the opinion of Darrell K. Rigby et al (2016, pp.5), an agile organization offers many benefits compared to a traditional one: compared to traditional, agile management approaches, it offers a number of major benefits:

- “it increases team productivity and employee satisfaction;
- it minimizes the waste inherent in redundant meetings, repetitive planning, excessive documentation, quality defects, and low-value product features;
- improving the visibility and continually adapting to customers' changing priorities, agile improves customer engagement and satisfaction, brings the most valuable products and features to market faster and more predictably, and reduces risk;
- engaging team members from multiple disciplines as collaborative peers, expanding organizational experience and building mutual trust and respect;
- by dramatically reducing the time spent on micromanaging functional projects, it allows senior managers to devote themselves more fully to higher-value work that they can do: creating and adjusting corporate vision; prioritizing strategic initiatives; simplifying and focusing work; assigning the right people to tasks; increasing cross-functional collaboration; and removing impediments to progress.”

Starting from Trzcielinski's agile enterprise model, Krystian Pawlowski and Edmund Pawlowski (2015, pp. 466) have identified and proposed 4 new features of an agile organization:

- “shrewdness of the enterprise - to which two categories of factors influencing the selection of management methods were assigned: level of market orientation and level of products' customization;
- flexibility of the enterprise - to which the organizational structure was assigned as a factor determining the selection of the management method;
- enterprise's intelligence - which has been assigned to two categories of factors that determine the choice of management methods: Prevalent processes of major business processes and spontaneity and integration of the information system with corporate operational activities;
- smartness of the enterprise - for which the determining factor for the selection of the management method is the orientation of the organization's development strategy.”

3. Conclusions

Following the study, we conclude that in the international literature we find numerous definitions of the concept of “organizational agility”, the term being also included in the area of interest of consultancy firms and management studies or subject of major conferences in the field.

However, for the analyzed period, 2014-2018, we could not identify a very large number of new definitions given to the concept of “organizational agility”, the authors focusing strictly on the presentation of the term in relation to the meaning given to the concept in earlier periods.

Regarding native literature, we have to say that we have not identified too many articles dealing with this topic. Instead, I noticed that for some bloggers it was a subject of discussion.

Regarding the synthesis, we can mention that this concept has been defined from several perspectives, the most approached is that an agile organization is the one that has the capacity to cope with the changes that occur in the environment in which it operates in a fast way and efficient.

Other definitions present organizational agility from the perspective of identifying and capitalizing on the opportunities in the environment, but also the benefits it generates.

We are rallying the idea that human resources are at the center of becoming an agile organization. We believe that we cannot talk about an agile organization in the absence of an agile workforce able to react as quickly as possible, find creative and innovative solutions and make the best decisions.

The human resources of an organization are the only ones that can differentiate it from other existing firms on the market and create a real competitive advantage.

Through the descriptive study we consider that we bring to the attention of those interested a modern management concept, providing the latest approaches of the term.

Of course, the reporting period, 2014-2018, may be considered a review limit, but it could be extended in the future; we wanted to know what is the current state of the definition and not necessarily its evolution over time.

This paper is the starting point for practical research. We consider essential a good knowledge of a concept before studying its applicability in practice.

Through its structure, we believe that the present work achieves its original purpose.

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BETTER SAFE THAN SORRY? ETHICAL ISSUES ON THE LEGALIZATION OF RECREATIONAL CANNABIS IN CANADA

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Abstract: *On October 17, 2018, the law of the legalization of recreational cannabis comes into force in Canada. Considered by some to be a marked gesture of irresponsibility and political calculation on the part of the Government of Canada, or applauded by others, this event does not go unnoticed. This paper sets out to present the path to the legalization of cannabis in Canada, the main articles of the law on cannabis, but especially the ethical issues related to this legalization. Indeed, the legalization of cannabis was one of the Liberal Party's flagship promises during the federal election race in Canada in 2016. Having won the elections by becoming a majority in Parliament, the Liberal Party of Canada will have to keep its promise. Yet, there are several ethical issues on the horizon: protecting young consumers or encouraging consumption? Resolving some societal problems related to addiction or their aggravation? Profitability for the government or deficit? Positive or negative impacts on the organizations management? Here are questions whose answers remain to be validated by time. This paper is a work in progress one. It represents a personal reflection of the author. It is not based on a comprehensive literature review and does not claim to be standard scientific research.*

Keywords: *recreational cannabis legalization; Government of Canada; ethical issues; impact on organizations.*

JEL Classification: M12.

Introduction

In 2018, the arrival of the legalization of cannabis inflamed everybody in Canada. Critics pointed to the hasty decision to make the pot legally, accusing the government of taking it without reflection, without taking into account the views of stakeholders directly affected by it, and without having a solid support for studies of impacts on health and on society in general. For them, it seemed that electoral interests and anticipated economic benefits outweighed the common well-being. On the other hand, detractors of the legalization advocated the fact that it will give a blow to the black market of the cannabis, thus protecting the population of poor quality products and more expensive than those envisaged by the government. In addition, the incomes from the sale of cannabis would be far from negligible and can be used to promote responsible consumption.

Despite the controversy over the legalization of cannabis, the Government of Canada is moving ahead and putting it in place on October 17, 2018. Since then, spirits have cooled in a certain way, and we are in a sort of waiting for results. If several studies begin to surface, the picture of the consequences (positives or negatives) is far from clear. After a few failures in October, it seems that the production and distribution of marijuana has returned to a normal path.

On the other hand, several ethical questions still remain with an incomplete answer: wish to fulfill at all costs an electoral promise, impact on young people and on people with problems of consumption, profitability versus social responsibility. Finally, what about the presence of cannabis on the business premises?

This paper is intended as a start for a reflexive look at the social responsibility of governments for controversial and sensitive decisions that affect a large part of a country's population. It will begin with a brief history of cannabis use and status in Canada, followed by the presentation of the product itself, and end with a personal reflection on some of the ethical issues that emerged as a result of the government's decision to legalize marijuana in all Canadian provinces and territories.

1. History of Cannabis Legalization in Canada

The prohibition of cannabis was decreed by the federal government in 1923, even his consumption it was practically non-existent in Canada at the time. At the same time, the Ministry of Health decided to ban heroin and codeine, adding to them the list of already banned substances, which for the last 12 years had included morphine and cocaine. As a result, Canada became one of the first countries in the world to criminalize marijuana use. Over the next 15 years, several countries followed it. (Several descriptive parts of this work are largely inspired by the book "Cannabis, 350 questions and answers" from the magazine La Semaine / Pratique and the government website "encadrement cannabis.gouv.qc.ca")

More recently, following five months of consultation and work, the expert group tabled its final report on November 30, 2016. On April 13, 2017, the Government of Canada introduced Bill C-45 to strictly regulate the production, distribution, sale and possession of cannabis, which was passed by the Senate by 52 votes to 29, on June 19, 2018. The cannabis law came into force on October 17, 2018, making Canada the second country to legalize cannabis after Uruguay in 2013. Due to the specificity of Canada, the provinces and territories should adopt their own laws to regulate cannabis on their territory. Thus, after the announcement of the federal law, the province of Quebec consulted its own experts, citizens and organizations, in the summer of 2017. In November 2017, Bill 157 was introduced, law regulating cannabis and amending various regulations on road safety. The new law was adopted by the National Assembly on June 12, 2018.

The objectives of the federal and Quebec law are to better control the production and distribution of cannabis, as well as to reduce the burden of criminal justice:

"In general, the purpose of the law is:

- restrict cannabis access to young people;
- protect public health and safety by introducing strict requirements regarding the safety and quality of the products offered;
- to discourage criminal activity by imposing significant criminal penalties on those who contravene the law;
- to reduce the burden of the criminal justice system on cannabis.
- The federal government will be responsible for creating and maintaining a national framework by determining:
 - the regulation of production;
 - adoption of health and safety standards;

- the establishment of criminal prohibitions."
(<https://encadrementcannabis.gouv.qc.ca>)

According to Quebec law, the use of cannabis is prohibited in enclosed areas and public spaces. The limit of possession in a private residence is 150 g of dried cannabis or its equivalent and 30 grams in a public place, as provided by federal law. Possession and use of cannabis is prohibited in certain places where there is a majority of minors, on the grounds of health and social services establishments, on college and university grounds, on bicycle paths and in transportation waiting areas and wherever it is already forbidden to smoke tobacco.

Provincial and territorial governments will be responsible for prevention, health promotion, public safety, including road safety, workplace coaching, distribution, sales and regulatory compliance; licensing, monitoring the distribution and sale of cannabis in accordance with minimum federal requirements. Quebec, like the other provinces, will have the flexibility to adapt certain provisions, which it intends to do with Bill 157. The bill also provides for the creation, at the Ministère des Finances, of a revenue fund from the sale of cannabis. A prevention and research fund will also be created at the Ministry of Health and Social Services to fund cannabis-related activities, programs and care.

According to the law governing cannabis, amendments were made to the Act respecting the Société des alcools du Québec (chapter S-13) to establish the model of non-therapeutic cannabis sale in Quebec. Among its main measures it is the expansion of the mission of the Société des alcools du Québec (SAQ) so that it can sell something other than alcohol and the constitution of the Quebec Cannabis Society (SQDC), a subsidiary of the SAQ whose purpose is to carry out the SAQ's mission concerning the sale of cannabis. According to the law, to carry out its mission, the SQDC can notably:

"Purchase cannabis that meets the standards set out in the Cannabis Act from a producer who meets the requirements of the Cannabis Act;

- operate retail cannabis outlets;
- sell cannabis using the Internet;
- authorize a person to transport, including the delivery, and storage of cannabis that he sells on his behalf;
- inform consumers about the health risks of cannabis, promote responsible consumption, raise awareness of appropriate support resources and direct those who want to stop using cannabis".
(<https://encadrementcannabis.gouv.qc.ca>)

To sell cannabis in the province of Quebec, for the moment, an agreement has been signed with six companies whose mandate is to supply the branches of the SQDC. These will be in number of twenty, in order to properly distribute the offer on the Quebec territory. According to the SAQ, it is possible that we can count 100 stores in 2021.

Lastly, Bill 157 will have significant impacts on many of the laws that will be amended following its coming into force, such as the Automobile Insurance Act; the Cities and Towns Act; the Highway Safety Code; the Law on the confiscation, administration and use of proceeds and instruments of illegal activity; the Tobacco Control Act; the Société des alcools du Québec Act.

2. Why is Cannabis so Popular?

Cannabis is a drug that comes from the plant of the same name. It is usually found in the following forms; marijuana, hashish, hash oil and THC concentrate extracts. You can eat marijuana rolled in a cigarette paper (joint) or mixed with tobacco. It can be smoked in a pipe or mixed with butter used to prepare food products. Its strong smell is easily identifiable.

The active substance of cannabis, the one that gives the euphoric sensation, is THC (tetrahydrocannabinol). It also contains CBD (cannabidiol), the other active ingredient, but it does not cause a psychoactive effect. It is used mainly for its therapeutic properties in the relief of certain symptoms.

According to the site encadrementcannabis.gouv.qc.ca, cannabis consumption has the effect that the consumer feels euphoria, carelessness, feels more sociable, his senses (smell, sight, touch, hearing, taste) are accented and he feels more creative. This is called the *high*, which occurs one or two hours after the consumption of a cannabis product. After an hour or two after inhaling cannabis and 6-8 hours after eating it, the user feels a physical and mental slowdown, the time of elimination of THC.

3. The Issue of Removing Cannabis from the Black Market

To ensure that organized crime does not take over the market, the federal government has strict rules and procedures to follow for cannabis producers and sellers. Also, a licensing system and tracking mechanism to monitor the movement of cannabis have been put in place to ensure that no product will end up on the black market.

To encourage Canadian consumers to abandon black market vendors, the price should be competitive compared to this market. Thus, if a few weeks before the entry into force of the legalization, the gram of cannabis was selling at \$ 8.03 in Montreal (one of the lowest prices in the world for a big city), the Government of Quebec announced its intent to recover at least 30% of the black market with a price of between \$ 7 and \$ 9 per gram in the first year.

Another element on which governments put is the supposed high quality of the products sold in the state company's stores. In practice, unauthorized pesticide use will be banned and there will be mandatory inspections by government officials. For tests the samples, researchers at UBC Okanagan have developed a test that is twice as fast as the standard currently used.

The ethical issue here concerns the danger that the black market will survive the legalization of cannabis and adapt to it. For example, we can bet on a decrease in the price of cannabis gram or on changing its composition, to make it even more dangerous from the point of view of dependence

4. The issue of encouraging consumption and aggravating dependence

One of the reasons that cannabis use is strongly contested by some is the associated risks. We note, among other things, its psychoactive effects. Cannabis impairs the ability to drive a car, can cause addiction, impair the development of young people's brains, cause psychosis, and harm people with heart or respiratory diseases.

Thus, cannabis affects the consumer's central nervous system, cognitive functions and psychomotor abilities. After a few hours, the active substance (THC) disappears almost entirely from the blood, but it remains present in the brain, the consumer being always on the effect of the drug. In addition, according to the National Institute of Health and Medical Research, in France, cannabis affects the ability to simultaneously perform different tasks and increases the reaction time. Attention and immediate memory are also affected, as well as sensory perception (vision, hearing, etc.), all of this, accompanied by drowsiness, with obvious detrimental effects on driving, for example.

Also, the risk of a toxic psychosis increases by 40% from the first time that cannabis is consumed. In short, according to the Quebec Association of Psychiatrists (AMPQ), the higher the THC content of cannabis, the more the consumer begins to consume at a young age, the higher the frequency of consumption and the more the quantity consumed, the more the person who consumes cannabis is at risk of developing mental illness.

Other diseases may also appear or worsen as a result of cannabis use, such as heart problems (increased heart rate and increased blood pressure) as well as some respiratory diseases.

Last but not least, cannabis can create addiction problems for consumers who already have this predisposition. According to several opinions, about 2% of regular consumers of a product (this is also the case of video games!) may develop an addiction, with sometimes very harmful effects on several spheres of life of the affected person.

In trying to reduce these negative effects on consumers, Canada's federal and provincial governments are placing a lot of emphasis on the control of production and consumption, as well as on the work of informing and educating the public about significant risks that occur with occasional or regular consumption of cannabis-based products.

What's more, research on the effects of cannabis on various aspects of society is an essential part of understanding the phenomenon and its good management. For example, the National Research Council of Canada awarded \$ 1.7 million for the study of cannabis between 2014 and 2017. For example, in early 2018, the Canadian Institutes of Health Research awarded \$ 1.4 million to studies in hospitals and universities on topics such as conduct and mental health, related to the use of cannabis.

In Quebec, the government has planned to pay \$ 25 million over the first five years of legalization to the Cannabis Prevention and Research Fund. Additional funding of \$ 26 million in 2018 and \$ 36 million in 2019 will be used to increase funding for public safety and municipalities.

This issue is the first that comes to mind when we talk about the legalization of cannabis and it will be the first to be scrutinized after some time. According to critics of the legalization of cannabis, anyway, those who have the propensity to develop an addiction, will get there anyway. For the opponents, they oppose it specifically because they think that legalization goes hand in hand with dependency.

5. The Issue of Profitability

Undoubtedly, the legalization of cannabis, its exit from the black market and the attribution of its distribution to state-owned enterprises represents a very lucrative

activity. According to the Parliamentary Budget Officer, Canada's national cannabis market generates about \$ 6 billion a year. According to Statistics Canada, in 2017, more than 5 million Canadians used cannabis, for an average expenditure of \$ 1,200 per person. Nearly 90% of these purchases were illegal, and therefore non-medical. For comparison, during the same period, Canadians spent more than \$ 22 billion on alcohol and \$ 16 billion on tobacco products. Cowan and Co. estimates that the Canadian cannabis market could be around \$ 12 billion in 2025.

In terms of government revenue, according to the C.D. Howe Institute, the sale of cannabis could bring about \$ 675 million to the federal and provincial governments. In this regard, the Government of Canada has an agreement with the provinces to allocate the excise tax levied on the sale of cannabis, a share of 75 to 25 in favour of the provinces, because of the costs they will incur.

For the province of Quebec, it is estimated that it will receive \$ 23 million in 2018-2019 and \$ 50 million in 2019-2020 in revenues for the sale of cannabis to the population and the economic benefits generated by the economic activity related to this market. However, the province will have to cover a \$ 9 million deficit related to the establishment of the Quebec Cannabis Company branches.

As for the market for cannabis-containing foods and beverages, it will only become legal in October 2019. If we take the example of the United States, in California, this more populous state than Canada, in 2017 we had sold cannabis-based foods and beverages for a total of \$ 180 million, which represents about 10% of the state's total cannabis sales. In Colorado, edible products have grown in the last two years at a rate of 60% per year.

If we look at the stock market profile of cannabis companies in Canada, we can see that there are close to 90, with a combined market value of about \$ 31 billion. Canada has some "unicorn" cannabis companies, that is, publicly traded companies worth more than \$ 1 billion (Canopy Growth, Aurora Cannabis, and Aphria). Several Canadian companies specializing in the cultivation of therapeutic cannabis have seen the value of their share increase significantly in 2018. For example, the cannabis company with the highest market value is Canopy Growth, of Smith Falls, Ontario. Founded in 2013, it was the first company to exceed \$ 1 billion in market capitalization. When it was listed on the Toronto Stock Exchange, its stock value was less than \$ 5, reaching in 2018 ten times that amount, for a market valuation of more than \$ 8.3 billion at the end of the summer. 2018.

Again, some of this impressive amount that should be in the coffers of governments will necessarily be used to prevent excessive consumption and to fund research aimed at improving the management of cannabis production and use.

This aspect is the most controversial of all in terms of its ethical scope: is it ethical to make it possible for companies to get rich on the backs of cannabis users who could themselves become addicted to it? And further, is it ethical for a government to rely on revenue from the sale of cannabis knowing that the consumption of this product can have many adverse effects on the health of the people of the country?

6. The Issue of the Presence of Cannabis in the Workplace

According to its stewardship right, the employer may regulate, including prohibit, any form of use of cannabis by members of its personnel in workplaces within the meaning of the Health et Safety Act (chapter S-2.1) unless this form of use is already prohibited under this chapter.

Clarifications have been made to the Health et Safety Act to clarify the responsibilities of employers and workers with respect to the performance of work where the worker's condition poses a risk to his or her health, safety or security, to its physical integrity, or that of other persons because his abilities impaired by alcohol, drugs, including cannabis, or a similar substance. The worker must not perform his work in such a state and the employer must ensure that he does not do so. In addition, the Act specifies that on a construction site, the condition of a worker whose abilities are impaired by alcohol, drugs, including cannabis, or a similar substance represents a risk.

Yet, many questions seek their answers, especially with respect to the reasonable accommodation of people who might require cannabis use on the premises of businesses because of an addiction, for example, as well as in relation to the acceptability of consumer drugs screening tests. To this end, the Quebec Order of Certified Human Resources Advisors (AHRC) has developed a guide for employers to prepare them for the arrival of the legalization of cannabis.

Despite all this, the management of cannabis on the corporate premises is watched with attention, but with some concern by several employers. So, we cannot say that their stewardship responsibility is reduced!

From an ethical point of view, we want to respect the rights and freedoms of the person, but at what cost for the people affected (employees directly involved and their colleagues), but also for the profitability of organizations (sick leave, class actions, complaints to the justice system, etc.)

Conclusion

On October 17, 2018, Canada was the first Western country to legalize cannabis throughout its territory. According to some, it would be the greatest social, medical and economic experience that the world has known since the end of the prohibition of alcohol in the United States in the thirties.

With some failures at the beginning of the sale (lack of inventory, unexpected crowd), the legalization of cannabis does not seem at the time of writing these lines to have disrupted the usual life of Canadians. On the contrary, we hear about it less and less, which could be seen as a good sign for the initiators of the project.

This paper has had the purpose to presenting the experimentation of the legalization of cannabis to a public that is less familiar with this subject. To do so, we have had no choice but to rely on what cannabis laws and regulations state, given Canada's practical experience is recent in this area.

Obviously, the link with the management of organizations is spread over several levels: first, the legalization of recreational cannabis seems to be a very lucrative activity, as shown by the stock market value of companies in the field, a value that is constantly increasing. Secondly, this legalization comes with its lot of problems concerning the presence of cannabis on the companies' site. Thus, employers are asking questions about the accommodations that are required by some cannabis users, but also about occupational health and safety, which could be jeopardized by cannabis use. Finally (last but not least), making legal cannabis could put additional pressure on health and social service organizations, as it can be assumed that many people would be tempted to try cannabis. Also, the prevention activity may require additional investments in the domain, which means that the management of these organizations should be adapted to the new reality.

Still, there are a few things that need to be watched in the years ahead: has the legalization of cannabis made Canadian citizens more aware of the impacts and risks of using cannabis on their own physical and psychological health? Has the cannabis black market really shrunk? Have funding for prevention and treatment of addiction really paid off? Or, finally, it is only a respected election promise and a good revenue issue for governments?

Only the future will tell us...

As stated several times in this paper, Canada's experience in the field of legal recreational cannabis is very recent. Further research, with a scientific methodology "to the letter" would, in my opinion, be very hasty, given the experience of only a few months in this field. We must wait until the process of legalization is more advanced, before seeing the consequences and impacts on many sectors of society, including organizations.

This paper is intended to be a personal reflection on the subject, given the author's experience and expertise in ethical aspects of organizational management. It is neither a review of international writings on the subject of recreational cannabis, nor a scientific research in due form. The aim was to make researchers think about a subject that is less familiar to them by a researcher who lives this social experimentation. So it's a work in progress, which will continue in the future on a more in-depth basis.

In the future, researchers could look at the analysis of statistical data on sales of the SQDC, the analysis of the black market (activity quite difficult to achieve), the number of patients admitted to hospitals because of cannabis use, the number and typology of prevention programs implemented by health and social services organizations, the number of accidents in companies due to the use of cannabis. In another approach, research could investigate the impacts of cannabis legalization on job satisfaction and conflict, leadership, or turnover. Also, research in the field of management could focus on the effectiveness of several programs (prevention, dependence, etc.).

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HISTORICAL ROOTS OF CENTRAL-EUROPEAN EUROPEANNESS

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Abstract: *This article proposes to validate a new vision of a qualitative research methodology in the field of management. The novelty derives from the multi-scientific and multidisciplinary treatment of the European regional or zonal integration process by merging the scientific research in the managerial field with that of the historical, social, anthropological etc. domains. This approach or methodology is a precursor phase for transdisciplinary research. The objective of the methodology is to enrich the fundamental knowledge through the potential of conceptual apparatus development. The method used also reveals the pursuit, over extended periods of time, of the appearance, evolution and possible disappearance or transformation of various sociological, political, administrative phenomena and not only. In the particular case, the article will treat a distinctive European integration process pre-existing to the European Union, in other words a process of European pre-integration. The dimensions and preconditions of the process will be presented, valid for the Banat region and implicitly for the city of Timișoara. The research examines the period of the Imperial Integration (Stirk, 2006, 12) starting with the administrative change in 1716 which represents the transition from Ottoman to the Austrian then Austro-Hungarian administration. The main cognitive contribution, of the research derives from the potential to generate or identify multiple points of view, treaty angles, considerations of a European pre-integration process. We consider these methodological benefits to be useful for streamlining, facilitating the process of European integration and preventing or solving the obstacles and challenges that have arisen or may arise along this ongoing process. The process of Europeanization, through its characteristics (social, political, economic, etc.), draws attention to the first important signals on the dynamics (especially on the growth) of the Europeanness degree. We can say that this research can draw attention to signals that imply adverse changes, on which, if implemented in a timely manner, with the help of an efficient management of integration, it is possible to diminish or even eliminate possible negative effects. The research was based on a multidisciplinary approach, analyzing managerial challenges (administrative implications in pre-integration processes) described in multiple primary sources of information. Information deduced from the study of the original administrative historical documents (using the methodology of historical research and documents from the Romanian National Archives directory) belonging to the period 1716-1914, as well as the analysis of descriptions from monographies, books of anthropology, political science, historical research books and conceptualization, but also from many types of dictionaries (explanatory, etymological, etc.) of different languages.*

Keywords: *Pre-European Integration; Europeanization; Process; Challenges; Historical roots.*

JEL Classification: *N93; R11; R58.*

1. European Character and the Europeanization Process

Being European by having common past, common values or simply geographical belonging to Europe is the most used meaning in the dictionary of the "European" concept, regardless of language. Becoming European involves engagement in the process of Europeanization. The need to analyze different explanatory sources in different languages for the concept of Europeanization was due to the multicultural and / or multilingual implicit nature of the process of integrating one or more cultures, identities, nationalities under a common umbrella. Thus we have concluded that the process of Europeanization is treated, in most of the explanatory sources, as a process of change, transformation (of the institutional, confessional, state, urbanity model), with an integrating role, a civilizing process, a return to the European source, change, re / conversion, revitalization, renewing, modernization, etc.. Variation and multiple connections from different sources connect the process of Europeanization through at least three dimensions (Socio-Cultural, Institutional-Administrative, and Economic-Geographic) and different nuances of current research. Thus, the process of European integration becomes conditioned by the process of Europeanization and is closely related to urban, regional, etc. change, transformational and civilizing processes. The existence of the above-described link can be also found in the current trends of the concept of European integration, more precisely explained by the concept of Europeanism (Scruton, 2007, 229). This concept describes the close link between European institutions, geographic and historical aspects as a determinant in shaping and maintaining well-being in the European integration process.

Pre-conditions of Europeanization Process

Another angle of analysis of the integration process is the existence of pre-conditions that are necessary before the implementation of Europeanization and, implicitly, of the European integration process. We believe that the absence of a common fund, a common force or a common goal or predisposition towards Europeanization can be the major source of the integration challenges and can negatively influence, make it difficult or even jeopardize the success of the whole process. We need to consider convergence (3) (social, political, economic, etc.) as the initial state of pre-Europeanization (4). Thus the state of convergence / divergence, between European values in countries, nations, regions already considered to be integrated with those to be integrated, are part of the socio-cultural dimension and thus have a major impact on Europeanization process success.

The objective of European integration is to create a strong (and military) union, based on social, economic, political, etc. projects, represented by supranational institutions, while ensuring the transfer of attention from its own national benefits to greater awareness of the increased, united European benefits and stronger cooperation (5).

2. Regional Level Europeanization Process

The process of Europeanization can be identified not only on national but also at regional level, identified in the case of Banat regarding the administrative change from 1716, which was accomplished through a vast process of pre-European integration or even of Imperial integration. In the case of the Banat region and

implicitly the city of Timișoara, the common past and the culture, before integration, have activated as a potentiating and catalysing factor for European convergence, thanks to the possibility of identifying pre-Europeanization cycles as a reversion to the Central European civilization. These facts, events and information were deduced from the research by analyzing the content of the historical documents (6) issued by the Austrian and then Austro-Hungarian Empire leaders that included or were valid for the Banat region and / or the city of Timișoara (7).

3. Past Events in Current Challenges

The importance of dealing with past events derives from their role in preventing or solving the current possible challenges of the European Integration process. Creating a link or a historical network of events / histo-network (8), made up of similar situations from the past with the situations of the present or with possible future scenarios. These are a source of inspiration and an inexhaustible informational resource with strategic potential in running and intervening in different processes including Europeanisation or integrating at the urban, regional level, etc. This information resource can have direct implications with decisive effects on the success or failure of the Europeanization process by creating the possibility of generating multiple scenarios (9) decoding historical DNA of contemporary events. The preparation and analysis of these scenarios allows holistic and clear view of the process of Europeanization by providing the information base necessary for the implementation of a successful management (10) of the Europeanization process.

4. Dimensions of the Europeanization Process

The dimensions of the Europeanization process prioritized and presented in this research are only a selection because of the limited space allocated and derives from the description of the Europeanization process. Treated as a process of civilization, in the sense of education, learning, training, chiselling, polishing or as a sophistication process, the conceptual-historical correspondent of the process of Europeanization can be assimilated to the processes of adhesion, return, renewal, change, transformation, modernization, etc. The areas targeted for civilization (11) are: civilization and social, administrative-institutional and economic-geographic culture.

4.1. Cultural, Civic and Spiritual Adaptation to the Central European Europeanness

Cultural, civic and spiritual adaptation implies a high degree of socio-cultural convergence between the characteristics of the regions, the already Europeanized urban, regional areas and those to be included in this process. The existence of a common mental fund, a common cultural value setting is necessary without jeopardizing regional identity or creating harmful negative tensions. The abundance of cultural convergence results must derive from the potency of its diverse but also compatible nature. Among the positive effects of a successful cultural adaptation process, we can enumerate multiculturalism, interculturalism or even more: transculturalism, multi- or plurilingualism, pluri-ideological harmony, cultural, ethnic, social, tolerance as main value.

The link between the cultural adaptation of the Banat region after the administrative change from the Ottoman to the Austrian one and the contemporary cultural integration can be represented by the intercultural and transcultural European character of the past and present. The European history of the cultural adaptation process in Banat region is represented by events, historical facts that have common valences, features or cultural elements or similar to those existing during the same period in the Austrian Empire. The timeless presence of values such as socio-cultural tolerance (12) expressed through "mutual tolerance" - (key value in the process of Europeanization) facilitated the process of cultural adaptation by ensuring a positive attitude of the city and region's inhabitants and represented unity based on diversity and inter-, multi- or transcultural wealth (the harmonious cohabitation of multiple ethnicities). These include bilingualism and trilingualism among the inhabitants, which has acted as a witness to functional cultural plurality and gradual and sustained linguistic adaptability, without losing the ancestral cultural-linguistic capacities. The absence or very low number of documents in the archive showing conflicts between representatives of different ethnicities or cultures reveals a predominantly harmonious state between them throughout the analyzed period.

As proof of the existence of a successful cultural adaptation process in Banat, in addition to the common fundamental values presented above, we present some facts and historical events that can support our ideas. The existence of similar or identical artistic premieres, temporally almost simultaneously in both Banat, more specific in Timisoara city and the capital of the Empire (the premiere of Franz Liszt's concert in Timisoara shortly after its representation in Vienna), the appearance of the State Theatre in 3 languages (13) also existing today, the existence of constructions that by specific architecture belong to the same architectural styles as in the major cities of the Empire, some of them having as architect engineers the same personalities or who have studied in the major cities of the Empire. By presenting these examples, we would like to draw attention to the success of the Europeanization process through cultural adaptation in the Banat region at the level and after the administrative change from the Ottoman to the Austrian and then Austro-Hungarian one. Moreover, contemporary cultural aspects still have many features (interculturality, tolerance open to other cultures) that can facilitate the process of contemporary European socio-cultural integration, serving as a model of cultural pre-integration, in the process of Europeanization.

Thus we can identify some necessary actions in the process of cultural adaptation, such as imperative structural reform, because the European community can only represent unity in intercultural diversity (14), so does the formation of a community culture in a civic sense (15) by common mental set-up, tolerance towards other ethnic groups, and the maintenance of harmony that would allow for the development of dialogues and cooperation bridges, rather than becoming an aggravating factor in cohabitation. Between the results of a successful cultural integration we must identify similar and convergent phenomena of: cohabitation, collaboration, cooperation, co-identity assimilation, etc.

Other dimensions of integration that are closely related to the ones described above can be: integration of education, social activities, etc....

4.2. Policy Adaptation / Institutional, Administrative Adaptation to Central-European Europeanness

By another explanatory concept, Europeanization, as a precursor of the contemporary European integration of a new region, areas, etc., is the process by which functional and specific European institutional models are taken over and / or adapted and implemented.

There are several aspects Knill (2001) to be taken into account during the implementation of this complex process of institutional change / transformation. The question of the extent to which institutional integration influences the internal practices and structures of the new region or area, the issue of the compatibility of the existing European and individual state policies, respectively the tension (but also the positive potential of the tension) between them.

Institutional integration can become a catalyst for economic convergence: From the point of view of the European Union's management and leadership system, institutional integration is a key process. A European Union that integrates only citizens, and also installs the European spirit, cannot create development tools, only if it institutionalized ideologies, policies that are generally valid. This change / transformation can be achieved through multiple options, such as: institutional adaptation or the development of new institutions for each newly admitted state.

Institutional or administrative adaptation of the Banat territory was a priority after the administrative change in 1716. The very decision to administer a special not annexed regime to the Empire was an administrative renewal / change. The direct management of the Banat region and Timișoara district marks the operationalization of the Central European Europeanization process through a distinctive, direct rapid and successful institutional adaptation. The Banat region was administered (Fenesan, 1997, 19) directly by Imperial structures such as the Crown and the Imperial Chamber, through the Vienna Aulic Forces (the Aulic Chamber and the Aulic War Council) under the institutional structure of the Provincial Imperial Administration (16) of the Banat region. At the regional level, the General Command, and at the level of the city of Timișoara, the German Magistrate and then also the Serbian Magistrate (17) represented major local administrative institutions. The division of the territory represented institutional change, being carried out on administrative units called districts. The management of the localities or villages was provided by sub-administrators, as the head of each village was a citizen or mayor, and over a certain number of villages it was an oberbneze (over-mayor). The administrators were subordinate to the General Command. All these structures represent major modernization in the administration of the Banat region and Timișoara, which contributed to the process of Europeanization through institutional adaptation and the development, revitalization of the region through the elaboration of general reorganization framework plans (18). Through the transformations made, institutional structures already in place at the level of the Empire were introduced. The General Command and the Magistrates in the city benefited from flexibility and financial support from the Provincial Administration for the planned, developed and implemented urban projects at local or regional level. In addition to the central and local administrative institutions, personalities, leaders (magistrates, governors, etc.) have initiated projects and maintained institutional relationships necessary for the successful implementation and finalization of projects therefore institutional adaptation have also contributed.

4.3. Economic and Geographic Adaptation to Central European Europeanness

The close link between economic and political integration in the integration process is explained by the idea behind European integration: the creation of a strong union, based on economic and political projects that are represented by supranational institutions, in time to ensure the transfer of attention from their own national benefits to greater awareness of the increased, united benefits of the European economic space and stronger political cooperation. The insertion of a new area, by economic and geographic adaptation and managing, exploiting its natural, financial resources, etc. can generate significant economical and logistical benefits.

The economic and geographic adaptation in Banat Europeanization process was represented by revitalization of the local economy and its modernization through the new established economic relations and opportunities. In the case of the Banat region and the city of Timisoara we can deduct from the multitude of documents with economic character, from the national archives, that the economic integration was facilitated and regulated by the Austrian and then Austro-Hungarian administration. The regulations have acted as a link between political intentions (area development) and economic development of the area, mainly focused on trade and crafts. Another purpose of regulation can be considered as ensuring a legal, institutional stability that is comfortable for both domestic and foreign investors. The success of economic adaptation was also due to the effects of integrative behaviors: the widespread involvement of different ethnic groups in economic and social activities and in academic-professional life.

A first step of economic and geographic adaptation in the process of Europeanization can be seen as the development of infrastructures, for example river infrastructure projects (19) for commercial and passenger transport, road infrastructure and railways. Thus, by providing transport and road access infrastructure to the region, the Banat area can mark the beginning of the Europeanization process through economic and geographical adaptation based first on the valorisation of products and goods from agriculture and local crafts. Other dimensions of European integration may be geographic or spatial adaptation, which in the case of Banat, compared to other areas or regions, is distinctive in the process of geographic adaptation due to the special status of a region not annexed to the Empire.

This geographic adaptation process can also have double valence due to the inclusion of the area, the geographic region in different spaces with different roles. For example, the inclusion of the Banat region in the Danube area (20) and belonging to this area involved the inclusion on a multitude of politically, economically and logistically important maps, the increase of its notoriety and the implicit generation of economic benefits (21) and not only. Another area in which the Banat region was integrated was the border line or the buffer zone between the Austrian and Ottoman Empires. This integration process has generated the need to engage in defence activities, maintain and develop the border region, and has offered new status to the region while maintaining an accelerated rate of economic, social, political, technological etc. development.

5. Conclusions

Sensing the analogy made in this research between contemporary and historic events regarding the European Integration and its challenges, we can conclude that somehow the two scenarios can be linked.

It is clear that the two situations cannot be treated in the exact same way but there are areas of interference or nuances that can be reduced to a common aspects for both situations. Therefore we choose to agree on the fact that processes of adaptation, change, transformation, modernization, reconversion, etc. identified during the analyzed period regarding the Banat region and the city of Timișoara, can be assimilated to pre-Europeanization processes underlying the pre-European integration. Also the analogy created between the contemporary European integration process and the historical Imperial adaptation or pre-European integration, of the Banat region can be regarded as a complex information source in solving the challenges and also represent the historical roots of the Central European Europeanness in region of Banat. The European pre-integration process of Banat can serve as a traditional European integration model of success and the analysis of this process can provide new optics for treatment or solving contemporary challenges.

The historic Banat through the pre-Europeanization process can be regarded as a primary form of what we call an Euro region today.

Research can be extended to other regions, countries, areas, cities by analyzing their historical documents.

Limiting the space for presenting research results has not allowed the development of several points of view and other possible dimensions of both contemporary and historical European integration.

References

1. Imperial Integration - Peter Stirk (2006) presents earlier forms of an economic and political union existence of before 1945, more before the First World War. As an example, the Habsburg Empire
2. Roger Scruton (2007) defines Europeanism as " the attitude according to which the welfare and institutions of the major European states are closely linked to geographic and historical circumstances, so that no convincing political action can be followed successfully in a state without a specific reference to the European integration attempt ".
3. Convergence implies compatibility in a single action (European integration / European pre-integration) of several or multiple sub-nations, nations, regions, cities, etc. different, coming from similarly shaped environments (European character conditions)
4. Similar characteristics, e.g., common history, common historical space, traditions, common values, as in the case of European character. Explained by dictionaries and encyclopedias as the quality of being European, of values, elements, common European history.
5. Likewise, Sanders, Bellucci, Tóka (2012, 217) noticed similarities with the European integration processes, drawing attention to the pre-integration phases, such as pre-integrated regions culture as factor that has the capacity to create European divergence, endangering the success of the whole process.

6. Analyzing historical original document content regarding Banat region and Timisoara city from The County Directorate of the National Archives in Timișoara, Fund 2. City Hall of Timișoara (n.n.CDNAT). The analysis of the documents consisted of the full or partial translation of the documents, the interpretation of the content, and extensive processes of deconstruction and conceptual reconstruction.
7. For example, the existence in the archives of documents governing the regional and local education system, in addition to the regulation of other military documents and its organization, as well as Imperial interference in confessional matters.
8. Network of historical events to be represented by knot events / historical / managerial important events in our case from the point of view of the European integration process and historical facts that represent the relations between these nodes. This approach requires the factual treatment of the past facts based on the analysis of fine details, not enough to be a set-up or a factual vision of them.
9. Scenario Logic - Managerial Research Method
10. History Knowledge Based Management, or in the case of Timisoara: Urban History Knowledge Based Management. Further, these concepts can be enriched using concepts derived from the type of integration: institutional, confessional, spiritual, multicultural, etc.. Eg.: Urban Institutional History Based Management, Urban Confessional History Based Management, etc.
11. Timisoara, the civilization process was imposed through intensive development processes (investments in infrastructure development using financial contributions from external sources) implemented by the Austrian administration, as well as processes of humanizing humanity (introduction of compulsory minimum schooling, facilitation of cultural events, etc.)
12. First Rabbi Dr. Ernest Neumann (2002) and the Jews of Timisoara regarding Banat region as "buffer role"... between the border regions of the national states created in the 20th century. The "cosmopolitan model of the eighteenth century" as a result of peaceful cohabitation.
13. Source: document from CDNAT, Fund 2: Town Hall of Timișoara, Nr. inventory 141, document no.7 / 1771, file 1-18, Administrative issues of the theater between 1771-1783.
14. The sociological and anthropological approach of Integration described by Jaques Chevalier (2009, 10), - "the historical roots of the collective mentality specific to this ancient region of European culture and civilization." Integration requires a new standard the one of interculturality, complementary to economic, institutional, democratic, standards already generally accepted.
15. Stelu (2010, 150-153): " disciplining social well-being of all the inhabitants of the border region."
16. Source: document from CDNAT, Fund 2: Town Hall of Timișoara, Nr. inventory 141, document no. 3/1718, files 1-2: Report of Timisoara City Magistrate to the Landes Administration regarding the use of false weight and measures by Serbian merchants and the necessity of unification of weights and measurements.
17. Source: document from CDNAT, Fund 2: Town Hall of Timișoara, Nr. inventory 141, document no.6 / 1772- The President of the Count P. Brigodo Administration tells the Serbian Magistrate that the suburb of Mehala is removed from his administration and moves to one of the newly created perceptions (Rentämter).
18. Source: document from CDNAT, Fund 2: Town Hall of Timișoara, Nr. inventory 141, document no. 1/1718, files 1-6: Provisions issued by the Imperial Commission

for the organization of the city of Timișoara from an administrative, economic, political, religious, and legal point of view.

19. The river infrastructure project by channeling the Bega River, which provided the most economical way to transport goods and people. The canalisation of the Bega River has made the connection with Central Europe through Tisa and the Danube.

20. Integrarea regiunii Banatului ca parte a spațiului dunărean: Includerea orașului Timișoara de-a lungul mai multor secole, pe multiple hărți# care este reprezentat fluviul Dunăre de la izvoare la vărsarea în marea neagră, indiferent de apartenența politico-geografică a regiunii. Acest fapt poate fi explicat prin existența a unei compoziții teritoriale specifice, o regiune încheagată prin apropierea geografică de fluviul Dunăre. Continuitatea temporală a existenței, pe aceste hărți, a regiunii Banatului și implicit al orașului Timișoara (1578, 1608, 1688, 1739, 1750, 1789, 1803, 1856) reprezintă efortul susținut al administrației publice regionale (indiferent de personalitățile guvernante), de a dezvolta, menține sau îmbogăți căile de comunicare, infrastructura din regiune.

21. Mastering the Danube from spring to shed

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EXAMINATION OF EVALUATING CAREER AND ASSIGNMENTS AMONG UNIVERSITY GRADUATES

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Abstract: *The problem of companies with a lack of talent is currently undeniable. Attracting well-qualified, motivated employees with the willingness to work and develop has an increasing role in more and more corporate strategies. Understanding and mapping the needs and expectations of a young generation leaving universities might put employers in a competitive position and shorten the lengthy process of recruitment. Existence of major financial incentives is an advantage in terms of attracting workforce, but taking into account its retention-related function, it is unlikely that it will have a long-term motivating effect on the most talented employees. A deliberately elaborated career management system begins with the selection process and flexibly changes until reaching the career objective by taking into account the interests of both employee and employer. The possibility of international assignments, coupled with a willingness to mobility, might raise the interest of students entering the labour market. Meeting challenges, and having international work experience makes employees competitive, and an international career becomes achievable. Present study examines the opinion of university graduates in relation with international assignments. It is based on the graduates of the University of Debrecen, Faculty of Economics. They are right before entering the labour market. The data collection was carried out by means of a paper-based questionnaire in autumn 2018; it was completed by 294 people. The questionnaire contains a word association test, multiple choice questions and blocks to be assessed on the Likert scale. According to the findings, it can be stated that the majority of the students of the sample would accept the opportunity of an international assignment before entering the labour market. Correlation between career-related ideas and work experience is indisputable. The willingness to accept an assignment might provide significant information to potential companies, but if expectations do not meet experiences, motivation and interest might show a declining tendency.*

Keywords: *career; university graduates; assignment; intercultural; competencies.*

JEL Classification: O15.

1. Difficulties of Assignments, Intercultural Competencies

When determining the value of an organization, human, tangible and organizational capital appear. In the course of internationalization, management of human resources in organizations has become a factor of critical importance (Poór et al., 2018). To increase competitiveness, employees need to be regarded as a value that requires continuous development and training. There are many factors to consider when managing international assignments. Competencies applied in the intercultural environment provide help to prepare the assigned students. If insufficient emphasis

is put on the existence of these competencies in the course of the process, the period spent in a foreign culture may become difficult, ineffective, and the success of the assignment might be jeopardized. The existence of professional and practical knowledge is a fundamental competence, but without deliberate mental preparation, dealing with cultural differences might become a problem (Schneider - Barsoux, 2003).

A classic, modern career can be characterized by the following concepts: stability, linearity, professionalism, strong organizational loyalty. Types of postmodern career types can be described by focusing on change-orientation, professionalism, and individual career objectives. However, the narrower interpretation of career is still primarily connected to professional advancement and organizational aspects (Barsiné Pálmai - Ponácz, 2004). According to the traditional concept of career, it means organizational hierarchy and progression within it. This concept is acceptable in linear-functional organizational structures. However, in recent years, efforts to break down the hierarchy and reduce vertical levels have been observed in many organizations (Dienesné - Berde, 2003). According to the traditional view, career means linear development, upward aspiration within the hierarchy, and involves long-scale thinking. Currently, a career is not necessarily linear and unpredictable; the reason for this might be the change within the market environment, since organizations are becoming increasingly flat and flexible, while individual career paths have changed. Other theories emphasize the importance of parallel careers due to the decreasing advancement possibilities of organizations (Whymark, 1999, quoted by Bodnár et al., 2011, p. 82).

The new understanding of career does not identify with the rise on the imaginary ladder, but discusses the enrichment and competence development of the personality as a whole. This can be interpreted as the widening of professional, methodological, social and human competences. In the course of defining career, terms like improvement and development can be come across in an increasingly wide scope (Dienesné - Berde, 2003, Dajnoki - Héder, 2017).

Big companies expect their employees to be willing to work as members of multidisciplinary or multicultural teams. Consequently, international tasks and responsibilities have to be presented towards the employees so that they are aware of the necessary competencies (Braham - Antal, 1994). The question arises: why do people prefer to compete within the global scene as a career step? Multiple factors bear influencing force; these can be economic, political, cultural, family and career objectives. Individuals frequently choose a company or an assignment location based on their preferences and hidden motivations from amongst the above factors (Carr et al., 2005).

The definition of intercultural competence by Berardo (2005, p.4) is generally accepted, according to which "Intercultural competence is the ability to effectively and appropriately contribute to various intercultural situations, successfully utilizing our own intercultural resources (e.g. knowledge, skills and attitudes)"

Integration into a foreign culture as a process can be divided into three stages. In the first phase, the employee experiences enthusiasm and optimism. In the second stage, frustration can be observed, while the last one is characterized by gradual acclimatization. These three phases can certainly be avoided, they do not appear to everyone, but the mentioned emotions are common. Their intensity depends on the motivation of the individual; the role of the family and the degree of uncertainty of work and daily subsistence also appear as additional influencing factors (Brett et al.,

1992, Rudnák, 2009). The second stage is considered particularly critical, as individuals face cultural differences the most extensively at that time. Problems and unexpected situations that occur within interpersonal and workplace environments become visible and perceptible. Some individuals require more time to adapt to the changed environment, while others need only a shorter period (Rudnák - Garamvölgyi, 2016).

In addition to coping with new culture and challenges, many factors make the process even more difficult:

- the mediating role of the expatriate (internationally assigned person) between the two cultures and the two organizations
- loyalty to the parent company and the local company – central instructions might violate local interests
- willingness to apply new methods instead of the regularly used ones
- isolation from or integration to the local culture
- distribution of responsibility and power: in spite of the assigned responsibility, achievement of the objectives depends on the local workforce (Rudnák, 2009).

Cultural intelligence can be described as the ability of an individual to effectively control and perform tasks in situations that can be experienced under cultural diversity (Ang et al., 2007). Various intercultural competencies are required for the efficiency of working abroad, which also facilitate integration. However, it has to be pointed out that every individual possesses these competencies to a different extent.

- ◇ Social skills: they support the integration into social life; they facilitate cooperation and building a network of contacts and trust. With this skill, missing information might be obtained, which reduces the level of stress.
- ◇ Linguistic skills: they have a role in making contact. The objective is not to perfectly learn the other language, but to achieve openness and communication. Good linguistic skills are a way to build a relationship with the host nation while refusing to use the language of the host country might have a negative impact.
- ◇ Cultural curiosity: motivation to work in the host country. Interest towards the other culture might be a selection criterion, as those who are not motivated will feel poorly in the foreign culture in the end.
- ◇ Tolerance of uncertainty: In the course of familiarizing with a new culture, there are often situations in which we do not possess all the necessary information. However, decisions have to be made despite unpredictability, which is a difficult task without sufficient confidence and instinctive adaptation.
- ◇ Flexibility: adaptation to unexpected circumstances.
- ◇ Patience and respect: in various cultures, scheduling of processes might be different as well; gaining experience is a time-consuming process.
- ◇ Cultural empathy: it is deeply rooted within the personality of the individual, a less modifiable property. The assigned person understands the perspective of the other person as well as the reasons behind different perspectives.
- ◇ Strong self-consciousness: In the case of its existence, the person is able to integrate into other culture without losing his/her own identity, negative factors are considered experiences and the ability to resist stress improves.

- ◇ Sense of humour: it is important due to integration and making contacts. It reduces uncertainty, frustration and desperation (Schneider – Powley, 1984., Rudnák 2009).

Analysis of the sense of humour also appears in the scope of creativity research. In the results of Gergely et al. (2017) obtained amongst students, the analysed individuals attached less importance to sense of humour. However, in the scope of their self-assessment, they evaluated themselves to be on a higher level than the one they consider expectable for high performance.

Adaptation of the global perspective is supported if the employee works in a group consisting of different nationalities. In the research results obtained amongst the managers of large companies operating in Hungary, Rudnák (2009) describes that during the selection process, the theoretical and professional knowledge of the assigned managers was the more important aspect opposed to their managerial, contacting, empathic competencies. According to the results of the study, the majority of the Hungarian managers of the analysed companies agreed that the possibility of working abroad attracts young graduates.

Intercultural competencies and family status are generally not decisive elements in terms of assignments, however, research results show they largely contribute to a successful outcome and the lack of their support might lead to failure (Arthur – Bennett, 1995).

In their study, Hunter et al. (2006) placed global skills above intercultural competencies. The concept was created in consultation with intercultural experts, summing up human openness, understanding of the cultural norms and expectations of others, and the effective application of the subsequently acquired knowledge in a foreign environment. The employee, leaving his or her own country and environment, in which he/she has been socialized, will face various challenges. Their successful or unsuccessful integration may leave a mark in their personality, self-image, physical and mental health. In their research, Ang et al. (2007) and Earley - Mosakowski (2005) defined the underlying causes of the problems of people working together in international groups; according to them, these problems are often explained by the concept of cultural intelligence. Even if the most successful experts of a certain field are in the same group, their cooperation might fail, due to certain competencies that could have been measured and developed earlier.

2. Material and Method

A career path based on foreign employment is attractive to young people, as it does not only challenge them but they might gain significant experience as well (Poór et al., 2012). The sample which present study is based on was provided by the graduates of the University of Debrecen, Faculty of Economics, right before entering the labour market. Data collection was carried out by means of a paper-based questionnaire in autumn 2018; it was completed by 294 people.

The primary data source of the research is the own questionnaire compiled on the basis of technical literature, which – besides basic identification data – deals with career, work experience, the importance of intercultural competencies and the role of potential assignments in the choice of a workplace. After a career-related word association test, multiple choice questions and blocks to be assessed on the Likert scale follow each other. Likert scale statements have 6 points, which allows for slightly wider differentiation compared to the 5-point scale and it avoids the 5-stage

classification used in the school system. Reliability of the questionnaire used to explore career- and assignment-related opinions is supported by the 0.73 value of Cronbach- α .

The results were analysed using Microsoft Excel 2016 spreadsheet software and IBM SPSS Statistics 22.

3. Research Results

The questionnaire was completed by 294 respondents. 58.16 % of the involved students are women (171 students), and 41.84 % are men (123 students). In terms of age, they mostly belong the 20-25 year age group. Respondents are distributed between BSc and MSc courses as shown in Table 1; there are 229 students in the former category and 65 students in the latter. The students represent eight BSc and six MSc courses. Students of the Business and Management course are represented with the highest proportion within the sample.

Table 1: Ratio of student's majors

BSc courses		MSc courses	
Business and Management	19.04 %	Human resource consultant	6.46 %
Agricultural economist and rural development engineer	11.22 %	Agricultural economist	1.70 %
Information technology and public administration agricultural engineer	4.76 %	Logistics management	3.74 %
Commerce and marketing	7.48 %	Accounting	4.42 %
International business management	11.22%	Business development	3.74 %
Finance and accounting	9.52 %	Management and organization	2.38 %
Sports organizer	11.56 %	n=294	
Tourism and catering	2.72 %		

Source: Own data collection and editing (2018)

Convenience sampling was applied for the study. Completion of the questionnaires was paper-based and took place in autumn 2018, voluntarily and anonymously. 41.2% of the respondents indicated a county seat as a place of residence, 40.5% a city, 18.3% a village or township. More than half of the respondents consider the financial situation of their families satisfactory; they are even able to accumulate savings from their income. As for the question related to how they evaluate their linguistic skills (irrespective of language certificates), 23.5 % replied high level, 64.3 % medium and 12.2 % replied that their skills are low and need to be improved.

In the course of word association, the task of respondents was to answer the following question: „What terms come to your mind, what does it mean to you when you hear the word „CAREER“? List your first 3 thoughts!“ The keyword here was career. Processing of the evaluated responses was carried out through categorisation. Sample size: 294 people. Figure 1 demonstrates the terms listed at first place and their categorisation.

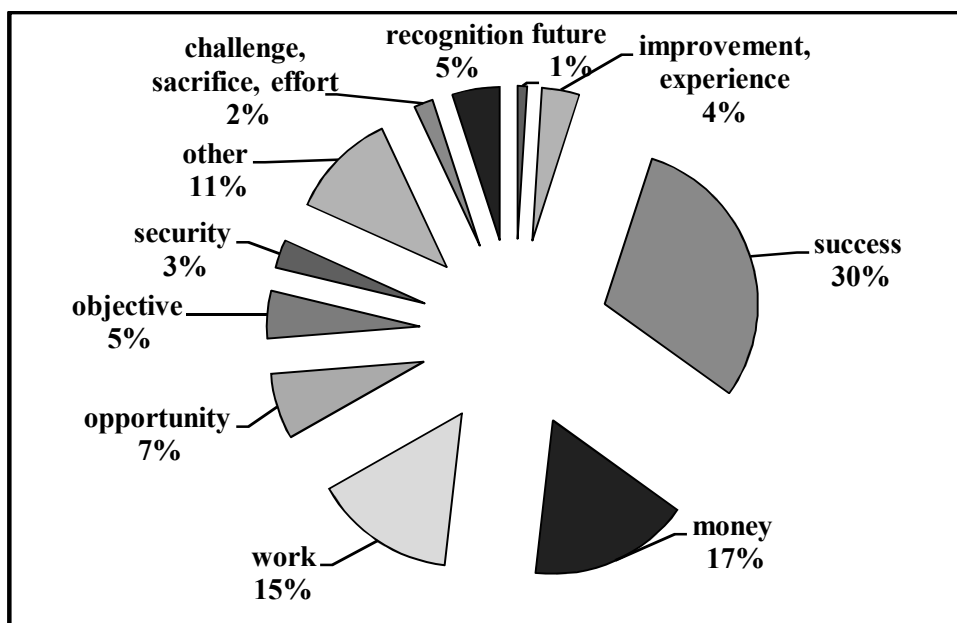


Figure 1: Career word associations listed at first place
Source: Own data collection and editing (2018)

Most respondents put success at the first place (30%). 17% of the involved students put money at the first place. Following success and money, work (15%) and opportunity (7%) reached the highest proportion. The other category included concepts, which were indicated by only a few students, for instance: low amount of free time, insufficient amount of sleep, fear, doubt, anxiety, female roles, invested time, satisfaction. Improvement, experience and opportunity are conceptual definitions, which give a carrier a new direction.

The linked concepts also include negative terms related to career, like sacrifice, effort and the above-mentioned elements of the other category (low amount of free time, anxiety and fear).

In their study, Bokor et al. (2006) also examined the unfavourable aspects career in the scope of a similar word association process. In the research, 740 employees were involved in a questionnaire survey. The results included sacrifice, high amount of work, stress, and ambition. According to the authors, career is a dual meaning term, referring to both success and sacrifice at the same time.

Similar results were obtained by Karcsics (2006) and Gergely (2016) in the scope of their research. In their case, success was also the first and money had the second place. Karcsics (2006), showed a downward tendency in the tangible assets supporting the career, as nobody mentioned anything relevant to this factor in the first place; this is confirmed by Gergely (2016) and the present study as well.

It may be related to career-linked terms whether the individual has work experience and if so, what type of work experience.

As for the question about the existence of work experience ("Do you have work experience?"), respondents had the opportunity to give multiple replies. The results are shown in Table 2.

Table 2: Work experience (number of replies)

Answer option	<i>„I have not worked yet”</i>	<i>„Yes, professional practice through student jobs”</i>	<i>„Yes, through a lasting workplace”</i>
Number of replies	44 pcs.	214 pcs.	58 pcs.

Source: Own data collection and editing (2018)

Most of the respondents have previous work experience due to professional practice or student jobs. The number of replies of lasting work position might be explained with the special nature of the dual master courses, in which the weekly schedule of students is divided between classes and a workplace.

The next question of the questionnaire dealt with the willingness of accepting an assignment in the future, should the company offer one. There were three options; Table 3 shows the received replies.

Table 3: Willingness to accept the assignment (n=294)

Answer option	<i>Number of replies (students) in the case of BSc courses</i>	<i>Number of replies (students) in the case of MSc courses</i>
„Yes, I would accept it even without work experience.”	95	28
„Yes, but only with some work experience”	95	27
„No”	38	11

Source: Own data collection and editing (2018)

Prior to the question represented in Table 3, the questionnaire included the following statement: „International assignment: The company assigns the employee to a different country with the aim of work and knowledge improvement for a period of 1-3 years.” The statement served the purpose that respondents are able to identify themselves with the thinking of the creator of the questionnaire and to associate the same example. This is important, because an assignment is different from deliberately working abroad, which is a situation initiated by the individual.

Based on the findings, it can be stated that the majority of the students of the sample would accept the opportunity of an international assignment before entering the labour market. The number of students who would face such challenges with and without work experience is nearly identical. According to forecasts, 75% of the global workforce will be constituted by younger generations in the near future (Deloitte, 2014), thus analysing the expectations of students when entering the labour market as well as their opinion of the value of their own knowledge might be especially justified (Kőmíves – Dajnoki, 2015). Based on the research of Csehné (2014) and Rudnák – Garamvölgyi (2016), individuals who underestimate themselves on the labour market are more willing to accept international jobs later in the future. According to Vroom (1964), there can be higher expectations toward an individual that is motivated and requires improvement than an employee that is not motivated, but possesses the proper skills. One of the most important objectives of international assignments is the adaptability of the knowledge and experience acquired by the assigned employee into the organization. In order for the experience and knowledge acquired abroad to be incorporated into the company, the assigned employee is

required to have lingual competencies and techniques, which support knowledge transfer (Cabrera, 2003).

To the question, which asked whether they find a company, which involves assignments into its career management system attractive, the following results were found (Table 4). The question was evaluated on a 6-point Likert scale, where the two ends of the scale mean: 1-it is not attractive at all, 6- it is very attractive for me.

Table 4: The attractiveness of the assignment

Mean (value)	Relative standard deviation (%)
4.61	29.93%

Source: Own data collection and editing (2018)

The mean value received based on the 6-grade scale (4.61) can be considered good, but the standard deviation (1.38) and relative standard deviation values should also be taken into account. Distribution of the replies is nearly extreme (29.93%), therefore the mean value does not represent well the statistical population.

Evaluation of the competencies is presented in Table 5. The question dealt with how much the respondents consider the listed competencies significant in the case of an assignment. The two ends of the scale mean 1- not significant at all, 6- very significant.

Table 5: The evaluation of the intercultural competence

Short name of the competence	Mean (value)	Relative standard deviation (%)
Contact making competence	5.34	16.80
Linguistic competence	5.49	14.79
Cultural interest	4.36	26.59
Tolerance of uncertainty	4.11	28.81
Complex problem solving	5.06	19.02
Flexibility	5.17	17.93
Creativity	4.76	22.67
Emotional intelligence	4.53	24.98
Self-confidence	5.36	15.48
Critical attitude	3.70	33.50
Awareness of responsibility	5.04	19.33
Patience and respect	5.10	19.44
Acceptance of other cultures	5.10	21.20
Learning from mistakes	5.00	21.53
Demand for learning and performance improvement	5.17	18.61

Source: Own data collection and editing (2018)

Findings of competencies applied in the intercultural environment are shown in Table 5. The evaluation of the 6-point Likert scale shows that the mean values are not particularly differentiated. The highest average value (5.49) belongs to linguistic competence, which also has the lowest relative standard deviation (14.79%) among the competencies. However, this value is also moderately variable, similar to self-confidence (15.48%), contact making competence (16.80%) and flexibility (17.93%). Values of the relative standard deviation show a more accurate picture for the

interpretation of the data. According to the evaluation by students, the lowest mean value is shown by the critical attitude (3.70) and the highest relative standard deviation (33.50%) also appears here, which is highly variable, thus the population cannot be characterized properly with this mean value.

The lower standard deviation shows the necessity for linguistic competences and language skills for assignments. The ability of making contact can also be included here, because in the absence of this competence, it is difficult for the assigned person to integrate into a foreign culture and integration.

In the case of adaptation to uncertain situations and flexibility, opinion of the population cannot be well described with the mean value. This may be due to the idea that decision-making responsibility with insufficient information rarely occurs in the well-planned assignment programme of the company, however according to the technical literature, this is a frequently occurring situation (Brett et al. 1992, Rudnák, 2009). The high standard deviation value of cultural interest might be explained by the internal motivation that is also discussed in technical literature (Carr et al., 2005). There are people for whom one of the motivating factors is the interest in a desired culture, while for others it is ranked lower in terms of their preferences.

It is worth observing the correlation between the existence of work experience and competencies (Table 6).

Table 6: Correlation of work experience and competencies (n=294)

Answer options /Competencies	Contact making skills	Critical attitude
<i>„I have not worked yet”</i>		
Number of replies	44	
Mean value of replies	5,14	3,91
<i>„Yes, professional practice through student jobs”</i>		
Number of replies	214	
Mean value of replies	5,38	3,72
<i>„Yes, through a lasting workplace”</i>		
Number of replies	58	
Mean value of replies	5,45	3,60

Source: Own data collection and editing (2018)

Contact making and critical attitude are two highlighted competencies. It can be seen from Table 6, that if the respondent has work experience, he/she then considered the contact-making skills more relevant. However, the value of the critical attitude is higher for those respondents who do not have work experience. Tasks experienced during professional practice and student jobs do not necessarily require the daily use of a critical attitude and expression of opinion; this might have influenced the lower mean value of existing work experience, as opposed to the lack of work experience. Correlation between career-related ideas and work experience is unarguable. The willingness to accept an assignment might provide significant information to potential companies, but if expectations do not meet experiences, motivation and interest might show a declining tendency.

4. Summary

The impact of globalization on the labour market is continuously increasing. Attracting talented employees and encouraging loyalty has become a key factor from a corporate standpoint (Meyskens et al., 2009). There is a need for labour retention systems that result in the increased loyalty of employees to the company (Bonneton et al., 2017).

Schein (1978) suggests to all companies, which have a large number of human resources, that it is worthwhile to conduct a careful examination; to map the skills, abilities, previous experiences of employees working in different fields and departments to gather information about their career goals and planned direction. He emphasized that if corporate and individual objectives can be coordinated by the management along the available information, it might gain a more loyal workforce base. Schein's findings justify carrying out a career anchor test before entering the labour market, as this can be decisive in terms of the direction students choose after graduation.

The research is of foundational nature and raises several aspects of future research. For the corporate side, it might be interesting to see the expectations of graduates when entering the labour market, and how many of them are interested in the opportunities offered by international assignments. We can assume a higher willingness to accept an assignment in the case of people who do not focus on starting a family, as the family does not appear as a holding back or stress factor. If large companies on the global scene are aware of the needs of new generations, they can apply tools for their retention that will meet both individual and organizational goals.

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DIGITAL FARMING AND PRODUCTIVITY EFFECT: "THE SMART VILLAGE" IN TURKEY

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Abstract: Food loss and unproductive farming are the main problems in agricultural activities in Turkey. During farming, harvesting and postharvest processes substantial losses take place. The existence of human beings depends on the supply of adequate food. Agricultural activities require detailed care and irrigation, hoeing, fertilization, harvesting etc. are vital problems for farmers. They spend all their time and energy for farming but they get very little. Also The reaction time of production is longer, depending on the variety and breadth of Turkey's climatic characteristics of agricultural land. This results in low efficiency and productivity in agriculture. In order to mitigate these negativity, institutions are trying to put forth new methods most of which are technology related. Digitilization and Internet of Things can be the the most rational methods to solve this problem. Agriculture 4.0, digital farming, smart farming are some of the concepts derived from Industry 4.0 logic and some institutions in Turkey try to help family farmers practice these innovations in their agricultural activities for higher efficiency. "Vodafone Smart Village" which was founded by TABIT (Agricultural Information and Communication Technologies) in Aydın province in Turkey is the first and only comprehensive sample for this purpose. The technologies used in the village provided a great advantage in agriculture and animal breeding. With the support of advanced technology and internet of things, innovations and developments are recorded and it aims to be a new generation professional gate of farming in the future. This is a new generation of rural life model, combining traditional farming methods with the possibilities of advanced technology, increasing production efficiency through information and communication technologies, and making the manufacturer's social life standards elevated with qualified knowledge. Economical objectives of the Smart Farm are at least 20% savings in plant production costs, save at least 22% on livestock costs, 30% revenue growth in livestock, 10% increase in total output, and within the scope of this information, annual revenue increase of 40.000 TL per household is 2 years. This study aims to put forth the productivity effects of various tecnologies and methods used in family farming in a small village. For this purpose, a questionnaire was applied to randomly selected male and female farmers living in the Smart Village. Findings are evaluated in terms of demographic status, education level, developping farming skills, access to information, use of technology, improvement of quality and quantity of products, and effect on productivity.

Keywords: Agriculture 4.0; smart village; digitilization; productivity.

JEL Classification: O33; Q13; Q16.

1. Introduction

As digitization in industrial world gets a great splash with new innovative technologies and begin to change the way of business radically, institutional and social structure of countries is also affected by these changes. The developments in information technologies bring innovations in agricultural activities as well as industry sector. Industry 4.0 is the leading concept for all these changes and everything is getting smart and digitalized.

Agricultural activities require detailed care and irrigation, hoeing, fertilization, harvesting etc. are vital problems for farmers. They spend all their time and energy for farming but they get very little. Also The reaction time of production is longer, depending on the variety and breadth of Turkey's climatic characteristics of agricultural land. This results in low efficiency and productivity in agriculture.

Agricultural products are insufficient against increasing population as agricultural productivity decreases for various reasons. According to the report published by UN Food and Agriculture Organization, in 2050, world should produce more than enough food for the world's food needs, at least 70% more than in 2006. In order to meet the ever increasing demand, all producers desire to increase the yield quantitatively and qualitatively, and to go digitalization in agriculture and use Industry 4.0 technologies. (FAO, 2012)

Digitization in farming involves IoT based data collecting, analyzing and transmission technologies like sensors, tracking systems, smart irrigation systems and machine to machine communication systems.

Machine to machine communication requires the existence of an information channel, which is called the Internet of Things (IoT). IoT is a network connection and data exchange of objects, equipments, vehicles, buildings or other incorporated electronic devices. IoT provide a system in which the objects not only percept their environment but also allowed to regulate it. Therefore, farmers can use the devices more efficiently and economically. (Gubán & Kovács, 2017)

Sensors collect and transmit data with connections to billions of devices and objects. A machine or an object is smart if it has some kind of electrical power. It is a connected node in the Internet of Things (IoT) or within any number of autonomous systems such as connected cars, wearable technologies, and smart buildings and cities. (Laboisie, 2017)

Agriculture and farming have used wireless sensor networks to improve its production and enhance agriculture yield standard in lowest cost. Farmers can potentially identify the various fertilizers, irrigation and other requirements by monitoring and understanding individual crop and its requirements,. The sensor node, which is small in size and low in power consumption, shows significant potential in this context. Depth of water, soil water tension and system capacity etc. are estimated for irrigation management system to maintain better crop yield. Therefore, there is an increase in the application efficiency of irrigation system by 10%. (Shinghal and Srivastava, 2017)

Water scarcity is one of the greatest problems faced by the world and agriculture need to consume plenty of water. Therefore farmers need a system that uses water reasonably. In order to manage an irrigation system, smart irrigation systems estimate and measure diminution of existing plant moisture, minimizing excess water use. (Ranjani & Sravya, 2018)

2. Digital Farming In “The Smart Village”

Digitization and Internet of Things can be the most rational methods to mitigate the food loss and unproductivity in agricultural activities. Agriculture 4.0, digital farming, smart farming are some of the concepts derived from Industry 4.0 logic and some institutions in Turkey try to help family farmers practice these innovations in their agricultural activities for higher efficiency.

Turkey has approximately 23 million hectares of agricultural land, 66% of which is used for field crops and 20% of it is used for fruit and vegetables. Digital agriculture practices in Turkey have yet to be implemented in very limited and there are steps to be taken to accelerate the transformation process. It is important to support the establishment and research infrastructures of enterprises aiming to develop domestic digital agriculture practices. (Ozdogan et al., 2017)

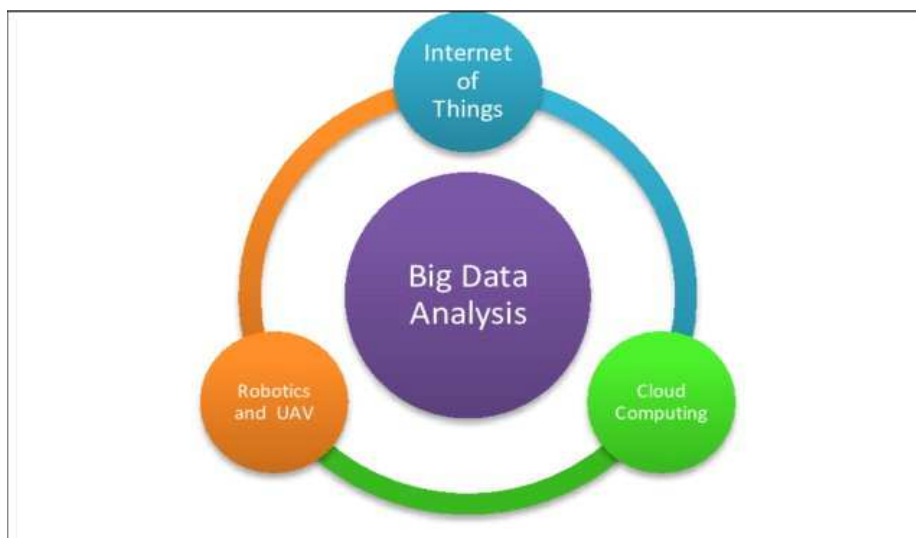


Figure 1: Components of Digital Agriculture

Source: Ozdogan, B., Gacar, A. and Aktas, H. (2017) *Digital Agriculture Practices in The Context of Agriculture 4.0*. Journal of Economics, Finance and Accounting – (JEFA) V.4-ISS.2-2017(13)-p.184-191.

Agricultural business take advantage of developments in digital technology, like increasing the management of arable land and the precision with which animals are monitored and fed, and also controlling agricultural production. It is possible by sensor technology, positioning systems, digital image processing, data visualisation tools, etc. (Brauna et al., 2018)

Mobile phones have advantages on PC's as they are cheaper, easier to carry and learn, and provide an environment for real-time interaction. M-Agriculture refers to the provision of agricultural services and information, using mobile devices such as cell phones, Personal Digital Assistants (PDAs), tablets and other handheld communication or computing devices. They are used to perform weather monitoring by the help of sensor network, in precision irrigation, for automated fertilizing,

greenhouse monitoring system, getting information with SMS, in disaster management and rescue missions etc. (Gichamba & Lukandu, 2012)

In Turkey, although there is a quite widespread mobile phone use, due to the high average age of farmers and not enough education level it is hard for them to use mobile agricultural applications.

While the use of smart phones is so common, mobile use is less in agricultural applications. This is because the program base is not sufficiently introduced to farmers; the average age of the agricultural population is high and the level of education is low. (Lee et al., 2014)

The production of agricultural goods is increasingly associated with the generation of data. But only a small part is currently used. The efficient utilisation of data requires the ability to process large amounts of it. The connection of agricultural elements and components along the supply chain via the cloud using Internet of Things and Services (IoTS) platforms becomes of increasing importance. The Internet of Things and Services closes the media gap between the physical and the virtual world and enables the provision of value-added services based on a current and comprehensive understanding of reality. (Brauna et al., 2018)

Agriculture 4.0 or Intelligent Agricultural practices refers to the use of advanced technology and modern information methods in agriculture. Mobile applications are portable and can be used by users to provide instant active use. In addition, uncertainty in the climate and wrong irrigation and the loss of property damage increased the use of mobile devices in agricultural activities. (Wolfert et al., 2017; Chaudhary, et al., 2011)

Objectives of smart agriculture can be as follows:

- a. To minimize the use of chemicals in production and to produce products at a lower cost.
- b. Thanks to smart agriculture, global warming, which is a problem for the world, is reduced by decreasing environmental pollution.
- c. This system, which offers suggestions to prevent unnecessary waste of wasted use of natural resources, contributes to lower costs.

2.1. Vodafone Smart Village

TABIT (Agricultural IT and Communication Technologies Limited Company) was established as a Social Initiative company in 2004. The company's aims are to address the information needs of people living in rural areas and dealing with agricultural production, to increase their productivity and profitability and accordingly to improve their quality of life by extending the use of technology and using the possibilities of technology. In business models, TABIT works with a structure including Technology based Agricultural Education, Social Responsibility Projects, M2M, IoT, IOS, Android Applications, SMS, MMS, Web supported Education and Agricultural Technologies. (<http://www.tabit.com.tr/>)

Vodafone Smart Village is one of the projects of TABIT. The village was built on a land of 88.320 square meters in the village of Kasaplar in Aydın Province in Turkey. Smart Village is a new generation rural life model combining traditional farming methods with the possibilities of advanced technology, aiming to increase the productivity of agricultural production with information and communication technology and to raise the social life standards of the farmers with qualified knowledge. (<http://www.tabit.com.tr/>)

In addition to various fruit and vegetable applications in the field, there are also some facilities like technology center, activity areas, market, kitchen, dormitory etc. The company serves together 1 million 400 thousand farmers in Turkey with the international partner firms. Significant changes in the field of agriculture and livestock have been recorded with the help of the new generation technology and Industry 4.0.

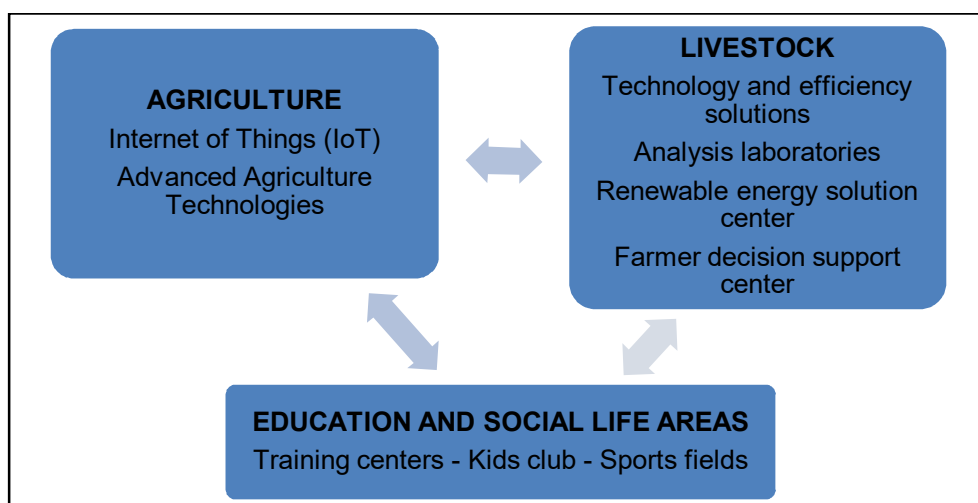


Figure 2: The Scope of the Smart Village

Source: <http://www.tabit.com.tr/>

Economical objectives of the Smart Village are as follows:

- a) At least 20% savings in plant production costs
- b) Save at least 22% on livestock costs
- c) 30% revenue growth in livestock
- d) 10% increase in total output
- e) Within the scope of this information, annual revenue increase of 40.000 TL per household is 2 years.

2.2. Technologies and Methods in the Smart Village

Vodafone Smart Village creates a model for environmentally friendly farming in all villages in Turkey, with special spraying unit, early warning systems, irrigation management and farmer information training, providing sustainability of agricultural resources as an obstacle to soil and water pollution through its intelligent systems. With the effect of Industry 4.0, all agricultural machinery from tractors to crop tools are equipped with sensors. In addition, the IoT is entered into the agricultural sector and communication is established between the machines throughout the production. The technologies used in the smart village are irrigation automation, beekeeping tracking system, sera sensor monitoring, meteorological station, intelligent gate and pasture automation, water tank automation, dupont damage detection.

The irrigation operations are activated with intelligent irrigation automation from the computer, phone and its own panel with a single touch. Intelligent irrigation method increases efficiency mitigating unnecessary use of water and reduces the costs by saving more than the normal irrigation method.

Thanks to NFC in the beekeeping tracking system, the amount and mobility of honey in the hive can be monitored remotely. Besides, thanks to the temperature, pressure and humidity sensors in the hive, hive tracking is facilitated and the bees have an increasing effect on the honey yield because the hives are not opened frequently. When there is sufficient amount of honey, the system sends the information message.

By the help of Greenhouse automation designed to minimize damage in greenhouse, IoT sensors are placed in the greenhouse for greenhouse sensor monitoring. QR codes on sensors are matched to the application in the device. The soil temperature and humidity of the greenhouse can be monitored through the system and it is possible to realize less cost, less time and less damage.

Meteorological stations are one of the best solutions for getting weather information on the terrain. By monitoring weather conditions such as temperature, wind speed, rainfall and frost, seed disposal, soil application, spraying and similar agricultural events are taken into consideration.

Thanks to the smart door, cattle are under constant monitoring in the smart village. By pedometer connected to the feet can be followed closely with disease and resentment periods. thus, the intelligent door, which is integrated with the herd management system, divides the cattle into different compartments that are predetermined.

Thanks to Dupont damage detection, high nutritional value of potato, tomato, corn, cotton and similar products are not unnecessarily sprayed. Spraying is done only when a condition is found that will damage the plant

3. Materials and Method

This study aims to examine the implementation of smart farming practices in Turkey and to explore the impact on agricultural productivity. The research is important because of being the first study prepared in the light of the data obtained from the implementation village of TABIT, an innovation company that is the pioneer of this application. Also, this study will be a guide in terms of providing data to further studies.

The effects of various technologies used on productivity were measured by a questionnaire applied to randomly selected thirty male and female farmers living in the Smart Village in Kasaplar village in the province of Aydın.

Conducting the survey on only 30 farmers who apply the smart agricultural practices and the insufficiency of the number of female farmers may affect the results of the study.

The survey is adapted from the survey prepared to investigate the impact of information technologies on productivity in Niğde University. The first part of the questionnaire aims to collect personal information such as gender, age, educational status, working time of farmers. The second part consists of twenty questions to determine the effect of applied technology on productivity.

Chi-square test was used in the analysis of categorical variables obtained from the survey. In independent groups t-test was used to compare total scores according to groups. Descriptive statistics were shown as mean + - standard deviation. The security analysis of the questions was analyzed with Cronbach's Alpha.

Findings are evaluated in terms of demographic status, education level, developing farming skills, access to information, use of technology, improvement of quality and quantity of products, and effect on productivity.

4. Findings of the Survey

The relational level and reliability of the survey questions were examined with cronbach's alpha test and it is found highly reliable with 0,812 value.

There are 30 villagers that answer the survey questionnaires, 26 of them is male (86,7%) and only 4 of them is female (13,3%). Majority of the survey participants are 41 years and over and this shows that the average of those who are engaged in agriculture is quite high.

Education level is very low with 76,7% of the participants are primary school graduates. Those interested in agriculture for 20 years or more are 83,3%. Most of the farmers has engaged in farming for many years

Almost all of the villagers (96,7%) said that technologies used in agriculture contribute to their development of farming profession and they take part in the idea that fast access to information prevents product waste due to seasonal uncertainties. No significant relationship was found between gender and contribution of technology to professional development. On the other hand, when evaluated in terms of education level, Table 1 shows the results on contribution of technology to professional development of farmers.

Table 1: Contribution of technology to professional development in terms of education level

Education Level			Partially agree	Agree	Absolutely agree	Total
Not	literate+primary	school	1 (4,3%)	18 (78,3%)	4 (17,4%)	23
graduate						
Junior high school graduate and above			0 (0,0%)	5 (71,4%)	2 (28,6%)	7
Total			1 (3,3%)	23 (76,7)	6 (20,0%)	30

Table 2 shows the contribution of technology to professional development in terms of period interested in agriculture. No significant relationship was found between period interested in agriculture and contribution of technology to professional development.

Table 2: Contribution of technology to professional development in terms of period interested in agriculture

Education Level	Partially agree	Agree	Absolutely agree	Total
<20 years	0 (0,0%)	4 (80,0%)	1 (20,0%)	5
>20 years	1 (4,0%)	19 (76,0%)	5 (20,0%)	25
Total	1 (3,3%)	23 (76,7)	6 (20%)	30

When asked if agricultural technology used in farming allows more work with less labor or not, all female farmers replied positively. On the other hand, only 42,3% of

the male farmers stated that they realized more work with less labor with agricultural technology.

Answers of the farmers to our question if “Products have improved in both quality and quantity” are shown in Table 3. There is no significant relationship between age ranges and effect of technology on efficiency.

Table 3: Products have improved in both quality and quantity

Education Level	Partially agree	Agree	Absolutely agree	Total
Female farmers	1 (25%)	2 (50%)	1 (25%)	4
Male farmers	3 (11,5%)	6 (23,1%)	17 (65,4%)	26
Total	4 (13,3%)	8 (26,7)	18 (60%)	30

When asked in terms of efficiency and performance “Have more products been obtained than before with minimum input in production?”, 100% of the participants agree. When evaluated in terms of education level, Table 4 shows the results on efficiency of technology in farming.

Table 4: Efficiency of technology in farming in terms of education level

Education Level	Partially agree	Agree	Absolutely agree	Total
Not literate + primary school graduate	0 (0,0%)	4 (17,4%)	19 (82,6%)	23
Junior high school graduate and above	1 (14,3%)	5 (71,4%)	2 (28,6%)	7
Total	1 (3,3%)	5 (16,7)	24 (80,0%)	30

5. Conclusion

As agriculture is vital for human existence, Agricultural losses and inefficient production should be minimized with the help of technology. By providing digitalization in agricultural activities and using innovative methods, and aiming to improve family farming, TABIT founded “Vodafone Smart Village” in a characteristic farmer village in Turkey.

The farmers living in the village were asked about technologies used and performance improvement. The survey results show that the average age of the farmers is high, their education levels are low and they are engaged in farming for many years.

In addition to performance improvement with technological innovations, The Smart Village aims to make agriculture a respected profession transferred to younger generations with social innovation. However, long and laborious efforts are needed to familiarize farmers with new technologies and methods. With months of training, farmers had to see the results of the application as concrete.

When the answers were examined, the results showed that the technological applications positively affect the productivity in agriculture. As a result, it was found that the applied agricultural technologies increased the productivity of the agricultural activities, regardless of participants' age, education and working time.

For the purpose of spreading smart agricultural practices to society, state and government policies must also be engaged in addition to individual initiatives. In

particular, it is appropriate for farmers to receive agricultural training for life and to inform them about the innovations in detail and practically.

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A JOURNEY THROUGH ETHICS IN ROMANIAN ACCOUNTANCY

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Abstract: *This paper aims to examine the ethical and moral profile of accountants in Romania, as a further step in understanding the adapting of the accountants' profile to the evolution of the profession in the context of an accounting system that "went through complex accounting reforms of more than two decades" (Mustață et al., 2011). The paper researched on studies focused on accountants' ethics from different perspectives like ethics in education, ethics in codes of ethics, perception of ethics between men and women in different cultures. Since an individual's personality is shaped within family primarily by behaviors of parents, responses indicated that family life plays a key role in the development of ethics awareness. Ethics is not part of curricula during university studies in accountancy in countries like Iran, where there were differences revealed in ethical standards according to gender as females have stronger religious beliefs and males are more egoistic than females. About ethics in the codes, the study questioned if the code of ethics is protecting the public interest or serving the private interests of the profession? Various literature states that responsibility of an accountant should be more than satisfying the needs of an individual and should meet the "public interest". In Romania, the Body of Expert and Licensed Accountants of Romania (CECCAR) was established in 1921 and supports and promotes high quality professional practices through special concern for the competence, aptitudes and ethics of those involved in the profession. Due to its fundamental commandments, CECCAR provides quality assurance of the services supplied by its members, guarantees initial education and continuous development of the professional accountants, oversees knowledge and application of ethics and the deontological conduct of the professional accountants. This work is a qualitative study, based on the review of the relevant literature, blended with a research based on semi-structured interviews with several Romanian professionals. Our conclusion is that perseverance in applying the professions' principles and the professionalism are key factors in maintaining ethics level.*

Keywords: *Accountancy; Accountant; Ethics; Moral; Profession.*

JEL Classification: *M410.*

1. Introduction

This paper aims to triangulate data from the academic literature and local interviews, in order to identify information regarding the ethical and moral profile of accountants. The purpose is to draw a wider picture of the professionals and compare the results with the Romanian institutional context.

In the last decades, in Romania, accountancy evolved together with the economic necessity of the market. The same evolution is needed for the professionals. The accounting system, "went through complex accounting reforms of more than two decades" (Mustață et al., 2011). (Filip and Raffournier, 2007) cited in (Musatață et

al., 2011) consider that 1989 represented a starting point of transformations and reforms in several areas of Romanian economics, including accounting.

From a legal and technical perspective, we are referring to the harmonization process that the Romanian accounting system had to achieve regarding the European Acquis, and the adjustment at the International Accounting Standards and International Financial Reporting Standards that shook the traditional system. As consequence, a metamorphosis of the profession followed. New experiences and challenges had to be faced by the professionals which are now important part of the economic life in Romania, still achieving skills and acknowledgement of their role in the society.

The study is organized as follows: a literature review on the moral profile of the professionals in an international context is followed by the description of the research method. Data analysis follows, and a conclusion part ends the paper.

2. Literature Review

In order to elaborate this paper, a review of the academic literature has been done together with qualitative methods as follows: the research was conducted in international publications like *Accounting in Europe*, *European Accounting Review*, *Critical Perspectives on Accounting*, *Accounting and Business Research*, *Accounting, Auditing and Accountability Journal*, and *Accounting and Management Information Systems*. The research was made using data base like Emerald Insight, and Clarivate Analytics Web of Science. The interrogations have been done using keywords like: "Accountancy", "Ethics", "Moral", "Profession", and 119 articles qualify connected to the subject of the research. For the elaboration of this paper 20 articles were selected and 6 were reviewed underneath.

Recent research (Bampton *et al.*, 2013; Tweedie *et al.* 2013; Baker, 2014) indicates that "the proportion of business ethics literature devoted to accounting and the proportion of academic accounting literature devoted to ethical issues are both small, and yet there has been a steady accumulation of research devoted to ethical issues in accounting". The papers resumed below studied accountants' ethics from different perspectives like ethics in education, ethics in codes of ethics, perception of ethics between men and women in different cultures.

A study developed in Turkey (Uyar and Güngörmüş, 2011) investigate accounting professionals' perceptions of ethics awareness, ethics education in university and pre-qualification, and the coverage of accounting ethics education. Data was collected using questionnaire based on a review of earlier studies on 219 accountants. The findings demonstrated that the respondents have not taken ethics education previously and that all stages of education life, from kindergarten to university, are important and contribute to the development of ethics awareness. The survey revealed that ethics education should concern the university education, but also the secondary and high school stages.

Since an individual's personality is shaped within family primarily by behaviors of parents, responses indicated that family life plays a key role in the development of ethics awareness. The ethics awareness is considered to be influenced also by peers, education life, teachers, social activities and work environment. The respondents considered a course of ethics to be the most appropriate approach in teaching and develop the ethical awareness (Uyar and Güngörmüş, 2011). Professional need to show interest in setting the regulations and taking precautions

about ethical work. Corporations have also great responsibility in ensuring ethical behavior among employees and should not foster unethical behavior like pressure on targets together with high rewarding.

Another research conducted in the U.S. (Baker, 2014), using the Foucault's concept of "codified discourse" presents the development of US public accounting profession over the last century. The study revealed that there was little ethical component in the original code of ethics of the profession, promulgated in 1917, that regulated the practice of accounting, as the private interests of the profession was protected as it regulated accounting practice rather than enhance the ethical behavior of accounting professionals. More recent version of the code contains aspirational elements regarding ethical behavior, but which incorporates few enforceable provisions. The research found out that the ethical discourse of the profession is located more in the behaviors of accountants practicing in international public accounting companies. In the Foucauldian sense the professional accountant is self-regulated and self-formed into an ideal member of the profession (Baker, 2014).

The question addressed by (Baker, 2014) is whether the code of ethics is protecting the public interest or serving the private interests of the profession? The results show that the ethical aspects of the profession can be found rather in the early self-forming practices of the profession than in its code of ethics. The study reveals that the market forces have also affected the code in significant ways like the acquisition of public accounting firms by non-accounting firms. Even if the main purpose of these changes was to facilitate the competitive ability of CPA's in alternate practice areas, this also removed the few remaining rules regarding professionalism like encroachment, competitive bidding, advertising, commissions, and contingency fees. The study reveals that there is still questionable if the U.S. CPA's will dedicate to achieving success or to the moral principles like independence, integrity and objectivity.

Another study of ethics through the COE has been developed in New Zealand by (Hooper and Xu, 2012) researched on ethical trends in the profession through a comparison between the current New Zealand Accountants' Code of Ethics and the first one in 1927. The analyse considered the changes in ethical philosophies as reflected in the profession's COE.

The original COE was only 6 pages long and focused on legitimacy by character employing the concepts of virtue ethics and was carefully restrictive and reduced advertising to a small card. The new COE counts 120 pages and the concepts of virtue ethics have now been replaced by a functionalist model, which protects clients by delivering expert services. The current COE is a legitimising tool for the accounting profession that emphasise image and quality. It promotes legalistic and technical values, implying a concern for public relations.

During this time the world has evolved and new ideas now prevail. There have been an increasing number of accounting scandals in recent years and the financial crisis seemed to involve "unethical business practices in the banking and finance industry" (Hooper and Xu, 2012) as these institutions enjoyed the benefits of unqualified opinions from their auditors prior to the collapse. The approach in illustrating the shift in the ethical trends in the accounting profession, is a recent New Zealand case of a collapsed finance company which sustain the "combinations of cognitive, moral and pragmatic legitimacy as drivers employed by accounting firms" (Hooper and Xu, 2012). It seems that the changes in the actual COE together with the shift in

underlying social values, does not have a positive impact on accounting ethics and contributes to a steady decline in professional ethics.

A study conducted in Iran (Modarres and Rafiee, 2011) analysed the extent to which Iranian accountants think ethically and the factors influencing the level of Iranian accountants' ethical decisions. The authors used four theoretical ethics models that have been previously developed by (Keller, Smith and Smith, 2007), (Epstein and Spalding, 1993), (Duska and Duska, 2003): egoism, utilitarianism, deontology and religious, which were tested with two statements ranked on a five point Likert scale. There were differences in ethical standards according to gender as females have stronger religious beliefs and males are more egoistic than females. The study revealed also that the level of education influences the level of ethics criteria. The results show that familiarity with the IACPA Codes of Ethics for Professional Accountants leads to a higher level of ethical standards. The results also show that Iranian accounting students' level of ethics is nearly moderate and there is a need for an ethics educational program in accounting courses in universities in Iran as the accounting curriculum of Iranian universities does not include accounting and business ethics. This finding is in line with the study of (Uyar and Güngörmüş, 2011) which concludes that a course of ethics to be the most appropriate approach in teaching and develop the ethical awareness.

The study (Modarres and Rafiee, 2011) considers the role of the IACPA Code of Ethics established in 2003 in creating awareness of ethics among Iranian accountants. The Code suggest that the responsibility of an accountant should be more than satisfying the needs of an individual and should meet the "public interest"; accountants are invited to work at "the highest standards of professionalism" and "the highest level of performance". Therefore, the IACPA Codes of Ethics encourage utilitarianism and deontology. The study suggests that both Islam religions and IACPA Codes of Ethics encourage utilitarianism and deontology - ethical principles of religions and Islam. While utilitarian, deontological, and religious ethical thinking are fundamentals of the IACPA Code of Ethics, it seems that Iranian accounting students' reliance on these schools of thinking is not strong.

A recent paper developed in China in 2010 approached ethics from a different point of view, researching on the impact of the organizational ethical context on organizational-professional conflict (OPC) and affective organizational commitment (OC) among Chinese accountants. In secondary, the paper analyse the link between ethical context and Machiavellianism.

The paper research on the impact of a debilitated ethical context on the activity of the companies. The study examines the consequences of the ethical climate on "affective outcomes among industry accountants in the People's Republic of China" (Shafer & Wang, 2010). The study is approached on a field survey of 89 professional accountants employed in 15 different companies in Mainland China.

The study suggests that ethical context is a key determinant of OPC and OC. Two aspects of the organizational ethical culture emerged as the dominant influences on both OPC and affective commitment: expectations of obedience to authority and strong ethical norms/incentives. The results revealed that weaker ethical cultures are strongly associated with increased conflict and decreased commitment.

The study reveals that organizational pressure to acquiesce with the demands of superiors may "conflict with accounting professionals' expectations of autonomy, resulting in higher levels of conflict and lower levels of affective commitment" (Shafer & Wang, 2010). The study also suggests that the association between high norms

and expectations/rewards for ethical behavior results in lower levels of conflict and greater commitment. These findings illustrate the importance of a supportive ethical culture in the companies to obtain commitment from employees such as accountants. A study conducted by (Albu et al., 2011) studied the changing role of accountants in Romania, where a number of interventions like harmonization with the European Directives, the introduction of International Financial Reporting Standards (IFRS) and of modern information technologies such as Enterprise Resource Planning (ERP) software made the accounting system more than “a tool to support a planned economy”. The study reveals that the traditional specialized position of the accountant would move towards hybrid positions, as the UK models. In order to obtain an overview of the expectations and roles of accountants, the study used the work of (Bollecker, 2000) and (Jarvenpaa, 2007) in analysing a number of job offers posted online. The study aims to find out what are the current expectations for a Romanian accountant in business and if they reflect a decision-oriented approach. The sample was formed by 1200 - 1500 announcements gathered during 2007, 2008 and 2009. The existing clear separation between financial accounting and management accounting resulted to move towards a hybridization. The frequency of the hybrid category has increased in 2008 and 2009 compared to 2007, demonstrating a tendency towards hybridization. In line with previous studies, the paper found that the process of hybridization is associated with ERP usage and that the accountant is transforming more and more into a consultant or business analyst.

3. Research Approach

A number of 11 interviews have been conducted with accounting professionals in Romania, 4 men and 7 women. The interviewers are not statistically representative. The interviews were semi-structured in the sense that I decided in advance on some topics to be covered during the interview. Interviews duration varied from a minimum of 40 min, to a maximum of 120 min. The interviews were conducted at the workplace of the interviewees or in my office in Constanța. All the interviewees are Romanian citizens and are based in Constanța. The interviews were carried out in Romanian, without using a voice recorder; notes were taken during the interviews and were fully transcribed. Content analysis of transcripts was performed in order to identify the main themes. The observations were discussed in order to eliminate eventual misinterpretations. No qualitative data analysis software was used in the process, as the number of interviews was not very voluminous.

4. Results

The findings of the study conducted by (Uyar and Güngörmüş, 2011) are that ethics is not part of curricula during university studies in accountancy. The same study developed in Turkey, concludes that ethics awareness is shaped within family primarily by behaviors of parents, being influenced also by peers, education life, teachers, social activities and work environment. This conclusion is in line with the statement of I1: “Ethics should belong to the human education and to one’s common sense, like a primarily instinct”. On the matter, (Lehman, 2014) argues that “The abstract idea of a phronemos and the concept of a virtuous life is directly applicable to the (non-)education of accounting.” (Lehman, 2014) explains that “The phronemos

is Aristotle's term for a wise and ethical person who has the capacity to judge and act appropriately."

In Romania, the Body of Expert and Licensed Accountants of Romania (CECCAR) was established in 1921 and is the representative organism of the accountancy profession, non-profit and of public interest. The Body supports and promotes high quality professional practices through special concern for the competence, aptitudes and ethics of those involved in the profession. Due to its fundamental commandments, CECCAR provides quality assurance of the services supplied by its members, guarantees initial education and continuous development of the professional accountants, oversees knowledge and application of ethics and the deontological conduct of the professional accountants.

Career in accountancy in Romania begins with an exam to access a three years stage within the Body of Expert and Licensed Accountants of Romania (CECCAR). During the years of stage, the future accountants are taking ethics lessons and study The Code of Ethics, approved in 2005 by the IFAC Council. The code promotes integrity, objectivity, professional competence and due care, confidentiality and professional behavior. This may not be surprising in the context of other countries as well. For example, prior literature elaborated in U.S. (Baker, 2014) concludes that there was little ethical component in the original 1917 code of ethics of the profession, as it regulated accounting practice rather than enhance the ethical behavior of accounting professionals; more recent version of the code contains aspirational elements regarding ethical behavior, but which incorporates few enforceable provisions.

While ethics is supposed to be a strong professional value in accordance with the accountants' certification and membership to the professional body rules, in practice there are many nuances. Some of the interviewees explain how they struggle to have an ethical behavior and resist pressures. One of the sources of pressures is the management of the company where accountants work. The management expects accountants to minimize the taxes paid. Reflective on the matter, I6 makes a very interesting affirmation:

"All the clients want to obtain profits, but the accountants only elaborate their financial data. As accountant, one should be honest and respect the law. But it's true, there are persons that desire to register a certain result. There are a lot of ways to fraud the law by eronated accounting registration".

At the same regard, I7 suggests that "Managers have often negative interference with the accountants, but they should express in writting the requests for the accoutants so there is a track". Very interesting statement of I11 that seems to conclude that the managers' request should not influence the ethics of the accountants that should simply quit their jobs if they are asked to do illegal registrations". This is in contrast with I10 which states that "managers allow accoutants to be ethics".

In other cases, the ethical behaviour and the lack of a network to support a less ethical behaviour might have negative financial consequences for accountants. At this regard, I3 states that:

"Once I deposited an offer to a law office and I've been called to discuss. The first question that they addressed was if I know any key person at the Ministry of Finance in order to receive protection in case of frauds. The fact that I had only institutional contacts with the Ministry made me lose the contract".

As previously explained, after the fall of communism (Albu, Albu and Alexander, 2014) Romania registered a number of important accounting reforms. This led to confusions and difficulties for the Romanian accountants that often harmed their ethics. At this regard, I2 considers that "The quality of the professional accounting services is influenced by the chaos legislation which expose the professionals to errors". The same interviewee considers that "Because of the legislative confusion and ambiguousness, the Romanian state elaborates sets of rules, permanently incomplete. We use more of our creativity then working following rules, as we do not apply principles". Legislation changes together with bureaucracy is considered by I10 as factors that negatively influence the accountants' decisions and ethics. On the matter, I9 states that "Ethics in time has been influenced by the legislation politics". The interviews showed that also ethics changed in time. As I6 states: "During my career, I did not analyzed my colleagues activity, but from the documents I revised during the time I noticed a decreasing of the professionalism and so the ethics". I7 explains the causes behind the changing of ethics: "Ethics changed in time: during comunism every registration was dictated by the party. After the fall of comunism, the profession was shocked by the technology development, the documents are spurioused electronically and are harder to be identified". In line with the conclusions of the study conducted by (Modarres and Rafiee, 2011) which revealed that the level of education influences the level of ethics criteria, we can by similarity say that the interviews showed that the professionals believe there is a direct link between professional competencies and ethics. I2: "The professional competencies are the most important fact influencing the profession, as the values that the performance gives you, helps flexibility and finding various solutions", I7 states that: "Ethics suppose a lot of elements. First of all, as the professionals, accountants should master very well the legality of the registration of the data in the accounting system".

5. Conclusions

The information obtained in this paper using data from the academic literature and interviews, facilitate us to draw an ethical and moral profile of accountants in Romania.

In Romania, ethics is part of curricula during university studies in accountancy. Ethics studies continues in the years of stage within the Body of Expert and Licensed Accountants of Romania (CECCAR). We found out that "Ethics should belong to the human education and to one's common sense, like a primarily instinct" (statement of I1), in line with the conclusions of the study conducted by (Uyar and Güngörmüş, 2011) Turkey, that ethics awareness is shaped within family primarily by behaviours of parents, being influenced also by peers, education life, teachers, social activities and work environment.

We faced the ethics though the managers pressions on the accountant's activity like minimizing the taxes paid or changing the financial image of the company through insincere reports and we found out that even if accountants some times face this kind of tension, they should maintain their profession integrity and resign if necessary. Studies developed in China revealed that organizational pressure to acquiesce with the demands of superiors may "conflict with accounting professionals' expectations of autonomy, resulting in higher levels of conflict and lower levels of affective commitment"(Shafer & Wang, 2010).

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WE WOULD LIKE TO BE LIKED – STRATEGIES USED TO CONTROL THE IMPRESSION OTHERS FORM OF US

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Abstract: *In the 'Power and Politics' chapters of Organizational Behaviour textbooks we often find a section on Impression Management (IM). This term means that people tend to influence how other people perceive them. This research field has been at the centre of interest since the 1980s. Researchers first defined the term, then explained the different forms, tactics and strategies of IM, and also developed measurement tools, which can be used to evaluate it. Its impact and connection with other behaviour variables has also been studied. In this article we will present a smaller part of our research in which we analyse the connection between Dark Triad personality factors, the perception of ethical leadership and the impression of management tactics used by university students. The research was done in the framework of an Organizational Behaviour course at the University of Debrecen's Faculty of Economics and Business. Students were asked to fill in a questionnaire. Feedback was given to them on how to interpret the results, in order to improve their self-awareness. Then the anonymous questionnaires were collected for research purposes. Participation in the research was voluntary. In the analysis we used basic statistical methods to compare the popularity of the 22 different IM behaviours. It is possible to divide the 22 items of the questionnaire into five well differentiated IM tactics. We calculated these figures and measured if there are significant differences between IM tactics preferred by men and by women, between respondents with and without work experience and between groups of students studying in different majors. We also compared our research results with one of our previous findings, and with figures available in the international literature. The most frequently used IM tactic in our sample was ingratiation. We found a significant difference between male and female respondents in the use of self-promotion and intimidation tactics. Comparing our research result to one of our previous studies (Ujhelyi and Barizsné, 2018), we found significant differences between Hungarian and Chinese students in the use of all IM tactics, and we also obtained similar results when we compared our findings with a sample from the USA analysed by Bolino and Turnley (1999).*

Keywords: *Impression management tactics; university students' behaviour; international comparison.*

JEL Classification: *M10; I23.*

1. Introduction

In this paper we will present a smaller part of research in which we analyse the connection between respondents' Dark Triad personality characteristics, the Impression Management (IM) tactics they use and the way they see ethical

leadership. The data collection was made among university students at the University of Debrecen's Faculty of Economics and Business. This study focuses on the IM tactics used by respondents. As a research methodology we used Bolino and Turnley's (1999) Impression Management questionnaire, which contains 22 items and measures five IM tactics: ingratiation, self-promotion, exemplification, supplication, and intimidation. In our analysis we used basic statistical methods. Before presenting our findings we give a short review of the literature on IM tactics.

2. Literature Review

"Impression management refers to the process by which individuals attempt to control the impressions others form of them" (Leary and Kowalski, 1990). This term is frequently used interchangeably with self-presentation; however, Schlenker (1980), for example, "reserved the term self-presentation for instances in which the projected images are self-relevant". Impression management has a broader meaning, while self-presentation also involves efforts to control individuals' impressions of themselves. When we want to analyse individuals' behaviour in order to control the impressions others form of them we can use both terms as synonyms (Leary and Kowalski, 1990).

Gardner and Martinko (1988) listed five reasons why it is important to deal with IM. First, it has an impact on individual success and promotion. Second, leaders within organizations can use it as an influencing tactic to obtain support from subordinates. Third, IM behaviours are elements of the managers' behaviour repertoire which they can use to influence organization and personal successes. Fourth, IM has practical importance, and fifth, through understanding IM behaviour, it is possible to better explain and understand social interactions within organizations.

Impression management has been studied from different points of view. An important question is the following: which factors stimulate the appearance of IM behaviour? According to Gardner and Martinko (1988), the environmental setting, and the characteristics of the actor and of the audience (target) also have an impact on IM. Turnley and Bolino (2001), in their research, proved that high self-monitors used IM tactics more successfully than low self-monitors. Other antecedents of IM and general evaluations made by observers about people who used these tactics were summarized by Bolino et al. (2008).

Probably the most important areas where IM has an impact are interviews and performance evaluations (Robbins and Judge, 2019; Harris et al., 2007; Higgins and Judge, T. A. 2004; McFarland et al., D. 2003).

In their comprehensive work, Bolino et al. (2008) reviewed the most relevant articles on IM published after 1988 in leading management journals. They collected frequently mentioned IM behaviours and defined these tactics. Table 1. presents these behaviours.

An important issue regarding IM is how to measure it. Researchers have developed different scales and measurement tools in this field. For example, Wayne and Ferris (1990) developed a measure of IM that has three groups of items: supervisor-, self-, and job-focused items. From our empirical research's point of view, an important feature is the 22-item scale measurement tool developed by Bolino and Turnley (1999). They use it to measure five types of IM behaviours: ingratiation (individuals do favours or use flattery to be loved), self-promotion (individuals point out their abilities, or accomplishments, in order to be seen as competent), exemplification

(individuals self-sacrifice in order to look dedicated), supplication (individuals advertise their weaknesses in order to look needy), and intimidation (individuals signal their power or potential to punish, in order to be seen as dangerous).

Table 1: Definitions of Impression Management Behaviours

Behaviour	Definition
Accounts	Provide explanations for a negative event to escape disapproval. Excuses and justifications are specific types of accounts.
Apologies	Accept responsibility for a negative event, offer to make things right, and promise to do better in the future; a form of defensive IM.
Assertive IM	Proactively manage impressions about themselves, typically by means of enhancements, ingratiation, self-promotion, exemplification.
Blaring	Publicly minimize their connections with unfavourable others; a form of self-focused IM.
Blurring	Blur their connections with favourable others by way of strategic omissions; a form of self-focused IM.
Boasting	Boast about their positive connections with favourable others; a form of self-focused IM.
Burying	Conceal their connections with unfavourable others; a form of self-focused IM.
Defamation	Attempt to harm the reputation of the target.
Defensive IM	Reactively manage impressions about themselves, typically by means of apologies, excuses, justification, and self-handicapping.
Demonstrative IM	Provide facts or details regarding the organization's specific activities.
Enhancement	Claim that positive outcomes for which they are responsible are more valuable than generally believed; a form of assertive, self-focused IM.
Excuses	Deny responsibility for negative behaviour or outcomes; a form of account; defensive IM.
Exemplification	Do more or better than is necessary to attempt to appear dedicated or superior; a form of assertive IM.
Favour	Rendering help for others or doing favours for them; a form of ingratiation.
Illustrative IM	Focus on things like pictures or broad generalizations.
Ingratiation	Use flattery and doing favours to attempt to appear likeable; a form of assertive IM.
Intentionally looking bad at work	Decrease performance, work at less-than-full potential, withdraw, display a bad attitude, or broadcast limitations to look bad or incompetent.
Intimidation	Threaten or harass to attempt to appear dangerous and powerful; a form of assertive IM.
Job-focused IM	Manipulate job performance information for their own benefit; similar to self-promotion.
Justifications	Accept responsibility for negative outcomes but not the negative implications; that is, there is an external cause for their action; a form of account; defensive IM.
Nonverbal	Alter facial expressions, posture, and so on to attempt to manage impressions.
Opinion conformity	Speak or behave in ways consistent with the target; a form of ingratiation.
Other-enhancement	Compliment or flatter targets; a form of ingratiation.
Other-focused IM	Behave in ways intended to make the target perceive them as likable or attractive; a form of ingratiation.

Behaviour	Definition
Self-enhancement	Make their best characteristics salient to targets; a form of ingratiation.
Self-focused IM	Behave in ways intended to make the actor seen as nice and polite by acting like a "model" employee or working hard when results will be seen by others; similar to exemplification.
Self-handicapping	Behave so as to provide an external explanation for poor performance; a form of defensive IM.
Self-promotion	Communicate abilities and accomplishments to attempt to appear competent; a form of self-focused IM.
Supervisor-focused IM	Engage in favour rendering, opinion conformity, and other forms of ingratiation that is targeted toward supervisors.
Supplication	Portray themselves as weak or dependent to obtain help; a form of assertive IM.
Verbal	Use spoken or written words to attempt to actively manage impressions.

Source: Bolino et al. (2008)

This is an instrument which is easy to use in organizations, is based on contemporary impression management theory, and involves the full range of IM tactics which individuals frequently use (Bolino and Turnley, 1999).

3. Methodology

In our empirical research, we used the Impression Management questionnaire developed by Bolino and Turnley (1999). It contains 22 items. The statements related to the five impression management strategies were mixed up before we used it. We carried out our data collection among Hungarian university students. Respondents had to respond on a 5-digit Likert scale according to what extent the statements were true for them. A few background variables were also asked (gender, year of study, course, ethical training). Students were asked to fill in the anonymous questionnaire during their Organizational Behaviour seminars. A total of 177 questionnaire were collected. In the data analysis we used simple statistical methods, calculated the means and the standard deviation, and also made independent-samples t-test; our findings were also compared with previous research results.

The distribution of our sample by gender was 116 women (65.54%) and 61 men (34.46 %). All respondents were students at the Faculty of Economics and Business at the University of Debrecen. They were studying on five different degree programmes. The most populous group was 94 students (53.11%) on the Bachelor in Finance and Accounting course, followed by 42 (23.73%) on the Bachelor in Business Administration and Management course, 26 (14.69%) on the Bachelor in International Business Economics course, 9 (5.85%) doing the Master's course in Leadership and Organizations, and 6 (3.39 %) doing the Master's course in Human Resource Counselling.

4. Results

First we exhibit the mean values of the Impression Management questionnaire's 22 items, in decreasing order (Figure 1).

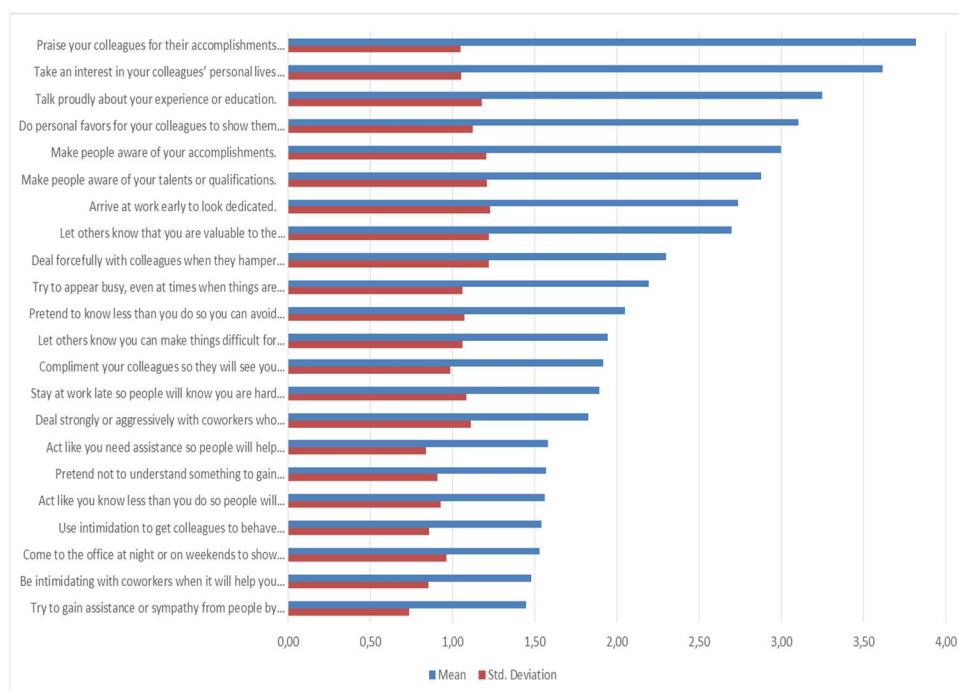


Figure 1: How frequently are different Impression Management behaviours used by respondents?

Source: Authors' own research results.

The highest values are close to 4 points, which mean that the respondent “sometimes behaves this way”, with the lowest around 1.5, which lies between “never behaves this way” and “very rarely behaves this way”. The items with the highest values are forms of ingratiation, or self-focused behaviour, while those with the lowest values are more assertive IM tactics, or forms of supplication.

We have calculated the means and standard deviation of responses related to the five different impression management tactics. Table 2 shows the values of the total sample, as well as the results for the male and female respondents.

Table 2: The means and standard deviation of IM tactics used by male and female respondents.

Impression Management Strategy	Total sample		Female respondents		Male respondents		T-test values
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	
Self-promotion	2.96	0.95	2.85	0.91	3.15	1.00	-1.987**
Ingratiation	3.11	0.81	3.18	0.83	2.98	0.77	1.638
Exemplification	2.09	0.73	2.02	0.71	2.21	0.74	-1.632
Intimidation	1.82	0.76	1.66	0.66	2.11	0.84	-3.608***
Supplication	1.64	0.70	1.60	0.70	1.73	0.70	-1.155

** significant at the .05 level, *** significant at the .01 level

Source: Authors' own research results.

The table shows that self-promotion and ingratiation are the two most commonly used tactics for the entire sample, as well as for male and female students. In the case of self-promotion and intimidation tactics, we found a significant difference in the behaviour of women and men (Table 2). Men are more likely to use both impression devices.

For items related to self-promotion tactics (except "Make people aware of your accomplishments,") the mean value for men was higher. For the items "Let others know that you are valuable to the organization," and "Make people aware of your talents or qualifications", this difference was significant (at the 5% level).

For statements connected to the intimidation strategy the mean value of men was always higher than that of women, and the difference between them was significant, except for the item "Let others know you can make things difficult for them if they push you too far".

We measured if there are significant differences between the frequency of IM behaviour used by students with and without work experience, but we did not find this to be the case at the 5% level.

Using the ANOVA method we measured whether we find differences in the responses of students in different majors. Only with the item "Deal strongly or aggressively with co-workers who interfere in your business" did we find a significant difference (at the 10% level) between International Business Economics and Business Administration and Management students.

Last year we carried out a similar analysis among international students studying in Debrecen. In Table 3 we compare our current results with the results for Chinese students.

Table 3: Comparison of the frequency of IM tactics used by Hungarian and Chinese students.

Impression Management tactics	Sample of Hungarian students (n = 177)		Sample of Chinese students (n = 20)		t
	Mean	Std. Deviation	Mean	Std. Deviation	
Self-promotion	2.96	0.95	3.29	0.73	-4.667***
Ingratiation	3.11	0.81	3.23	0.82	-1.931*
Exemplification	2.09	0.73	2.66	0.85	-10.495***
Intimidation	1.82	0.76	2.23	0.69	-7.265***
Supplication	1.64	0.70	2.65	0.95	-19.075***

* significant at the .10 level, *** significant at the .01 level

Source: Authors' own research results.

The data show that there are several tenths of differences between the means of the two samples, and Chinese students use IM tactics more frequently. The statistical significance of the deviation was checked by a one-sample t-test, where Chinese averages were considered as reference values. The last column of Table 3 shows that we have obtained significant differences between the two groups, even at the 1% level, except in the case of ingratiation (there we found a significant difference at the 10% level). The biggest difference exists between the means of supplication (1.01). Chinese students use these tactics more frequently. The order of frequency of the tactics used by Hungarians are ingratiation, self-promotion, exemplification,

intimidation and supplication. Chinese use self-promotion most frequently, followed by ingratiation, exemplification, supplication and intimidation. The standard deviation of the Hungarian sample was particularly pronounced in the case of supplication, exemplification and ingratiation.

Bolino and Turnley (1999) also tested the questionnaire with the participation of university students (n = 94) from the USA, so we were able to compare our results with the US means. Table 4 shows the means and standard deviations of the Hungarian and USA samples.

The data show that here we also have differences between the means of the two samples, and the American students use the analysed IM tactics more frequently. Similarly to the previous analysis, the statistical significance of the deviation was checked by a one-sample t-test, where USA averages were considered as reference values. The last column of Table 4 shows that we have obtained significant differences between the two groups at the 1% level.

Table 4: Comparison of the frequency of IM tactics used by Hungarian and USA students.

Impression Management tactics	Sample of Hungarian students (n = 177)		Sample of USA students (n = 94)		t
	Mean	Std. Deviation	Mean	Std. Deviation	
Self-promotion	2.96	0.95	3.40	0.75	-6.203***
Ingratiation	3.11	0.81	3.46	0.78	-5.706***
Exemplification	2.09	0.73	2.82	0.84	-13.430***
Intimidation	1.82	0.76	2.22	0.85	-7.089***
Supplication	1.64	0.70	2.24	0.76	-11.298***

*** significant at the .01 level

Source: Authors' own research results

The biggest difference in the use of tactics is with exemplification, where there is a 0.8 difference between the means. As for the order, intimidation and supplication in both samples are in the last two places, but in the case of the Hungarian students the least frequently used tactic is supplication, while for American students it is intimidation. In both samples ingratiation had the highest mean. The standard deviation of the Hungarian sample was particularly pronounced in the case of self-promotion and ingratiation, while the standard deviation of the American sample was greater in the case of exemplification and intimidation.

5. In Conclusion

In our paper we analysed the IM tactics used by university students with the help of the Impression Management Questionnaire developed by Bolino and Turnley (1999). It has 22 items and measures five general IM tactics: self-promotion, ingratiation, exemplification, intimidation and supplication. The most frequently used tactic in our sample (n=177) was ingratiation. We found a significant difference (on a 10% level) between male and female respondents in the usage of self-promotion and intimidation. In case of other background variables we found only minor differences. Comparing our results to one of our previous studies we found that a strong

significant difference exists between Hungarian and Chinese students' IM tactics, and we also found a similarly strong difference when we compared our Hungarian sample with the American one analysed by Bolino and Turnley (1999).

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